

### **Perinatal Hepatitis B Prevention Program (PHBPP)**

### Michigan Perinatal Hepatitis B Prevention Program Staff:

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**Mission:** To identify hepatitis B surface antigen-positive (HBsAg-positive) women

prenatally or at delivery for each pregnancy so that their infants, household and sexual contacts can be tested and treated to prevent the spread of the hepatitis B

virus (HBV).

**Surveillance:** Statewide, an average of 332 HBsAg-positive pregnant women is reported

annually. Based on Centers for Disease Control and Prevention (CDC) estimates,

396-597 HBsAg-positive pregnant women should be identified annually.

**Prevention:** Prevention of perinatal hepatitis B transmission requires the coordinated transfer of

information between laboratories, primary care providers, hospitals, and the

local/state health departments to ensure that all:

• Pregnant women are screened for HBsAg, all HBsAg-positive results are reported to the local health department (LHD) in the county where the patient resides within 24 hours, and the results are sent to the delivery hospital with the prenatal care record.

- Household and sexual contacts of HBsAg-positive pregnant women are identified, tested and immunized if susceptible.
- Infants of HBsAg-positive women receive appropriate prophylaxis and postvaccination serology.
- All infants receive the birth dose of hepB vaccine prior to hospital discharge.

To view the manual in its entirety or to obtain additional copies go to <a href="www.michigan.gov/hepatitisB">www.michigan.gov/hepatitisB</a>.

See the 12/23/05 MMWR: "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States" for the latest Advisory Committee on Immunization Practices (ACIP) recommendations, at <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm</a>.



### **Overview: Perinatal Hepatitis B Prevention Program (PHBPP)**

### If you work in a laboratory:

- Report all hepatitis B surface antigen-positive (HBsAg-positive) results to the local health department (LHD) in the county where the patient resides within 24 hours of discovery
- Report all HBsAg results to the ordering physician

### If you provide prenatal care:

- Test every pregnant woman during each pregnancy for HBsAg
- Inform pregnant women of their HBsAg status
- Send copy of HBsAg test result for current pregnancy with prenatal records to delivery hospital
- Report all HBsAg-positive pregnant women to the LHD within 24 hours
- Counsel HBsAg-positive pregnant women about their status and refer for appropriate care
- Contact the pediatric provider to communicate the woman's HBsAg-positive status and the need for hepB vaccination and hepatitis B immune globulin (HBIG) for the infant
- Assess HBsAg-negative pregnant woman's risk for hepatitis B infection
- Counsel HBsAg-negative pregnant woman on methods to prevent hepatitis B transmission
- and vaccinate pregnant HBsAg-negative women if high risk
- Retest high risk pregnant HBsAg-negative women in their last trimester

### If you work in the hospital labor and delivery unit or in the nursery unit:

- Review and record the maternal hepatitis B surface antigen (HBsAg) test result for the current pregnancy on both labor and delivery record and on infant's delivery summary sheet
  - If a woman presents with an unknown HBsAg status or with risk factors, test STAT
  - If STAT test is HBsAg-positive, report to the LHD within 24 hours
- Give all infants single-antigen hepB vaccine at birth
- Give all infants born to HBsAg-positive women single-antigen hepB vaccine and HBIG within 12 hours of birth
- Report administration of HBIG and hepB on the electronic birth certificate (EBC) worksheet
- Record the maternal HBsAg testing date and result on all newborn screening (NBS) cards
- Report all HBsAg-positive women and the HBIG and hepB administration to the PHBPP

### If you provide pediatric care:

- Know the maternal HBsAg status for all infants to whom you provide care
- Complete the recommended hepB vaccine series and post-vaccination serology for all infants born to HBsAg-positive women
  - If infant is HBsAg <u>and</u> anti-HBs negative, repeat three doses of hepB vaccine and retest one month later
  - If the infant is HBsAg-positive, counsel the family and refer the infant for appropriate care
- Record vaccine administration in the Michigan Care Improvement Registry (MCIR)
- Report hepB administration and post-vaccination serology results to the PHBPP

### If you provide health care to a contact of an HBsAg-positive woman:

- Identify, test and treat all household and sexual contacts of women who are HBsAg-positive
- Counsel HBsAg-positive contacts and refer them for appropriate care
- Give susceptible contacts three doses of hepB vaccine and complete post-vaccination serology
- Record vaccine administration in the Michigan Care Improvement Registry (MCIR)
- Report hepB administration and post-vaccination serology results to the PHBPP



### Perinatal Hepatitis B Prevention Program (PHBPP) Services

### **Universal Hepatitis B Vaccination Program:**

Hospitals who are enrolled in this program receive free hepatitis B vaccine to give to all infants at birth. This service acts as a "safety net" to prevent both horizontal and vertical transmission.

### Hepatitis B vaccine and hepatitis B immune globulin (HBIG):

Infants, household and sexual contacts enrolled in the perinatal program are eligible for free hepatitis B vaccine, HBIG, and testing.

### Free Hepatitis B test kits are available for:

- Pregnant women who do not have insurance or Medicaid, for the initial prenatal work-up and for re-testing if high risk
- Infants born to HBsAg-positive women after completion of the hepatitis B vaccine series
- Household and sexual contacts of HBsAg-positive pregnant women

### Case management services:

Educational information, support and tracking are provided to ensure hepatitis B vaccine series completion and testing. These services are available to all infants, household and sexual contacts associated with the pregnant HBsAg-positive woman reported to the PHBPP.

### **Guide to Perinatal Hepatitis B Prevention:**

A comprehensive manual is available at <a href="www.michigan.gov/hepatitisB">www.michigan.gov/hepatitisB</a> with sections specifically designed for:

- Prenatal Care Providers
- Laboratories
- Hospitals
- Local Health Departments
- Family Practice Providers
- Pediatric Care Providers

### **Educational sessions:**

- Perinatal Hepatitis B Prevention with 1.0 contact hours
- Hepatitis A-E with 1.5 contact hours
- Hepatitis A-E and post-exposure prophylaxis with 1.5 contact hours

If you have any questions, or for additional information on how to obtain these services contact the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.



### Michigan Infant Dies from Perinatal Hepatitis B Virus (HBV) Infection

A three-month-old infant died from acute HBV infection due to an error in reporting. After a review of provider and hospital records, it was determined that the infant's mother was chronically infected with HBV and tested hepatitis B surface antigen-positive (HBsAg-positive) during her pregnancy. Unfortunately, the test results were not reported from the laboratory to the local health department (LHD), and the provider inaccurately reported the mother's results as HBsAg-negative to the delivery hospital.

Since the information from the prenatal care provider indicated that the infant's mother was negative for HBV, the infant did not receive hepB vaccine or hepatitis B immune globulin (HBIG) as recommended for all infants born to HBsAg-positive women. The infant became ill at three months of age and died less than two weeks later due to fulminant HBV infection.

This tragedy illustrates the necessity that all laboratories and ordering physicians comply with Michigan law. It is absolutely critical that every HBsAg-positive result for pregnant women is reported to the LHD and to the delivery hospital.

### What Happens to Infants Born to HBsAg-positive Women?

**WITHOUT** HepB vaccine or HBIG:

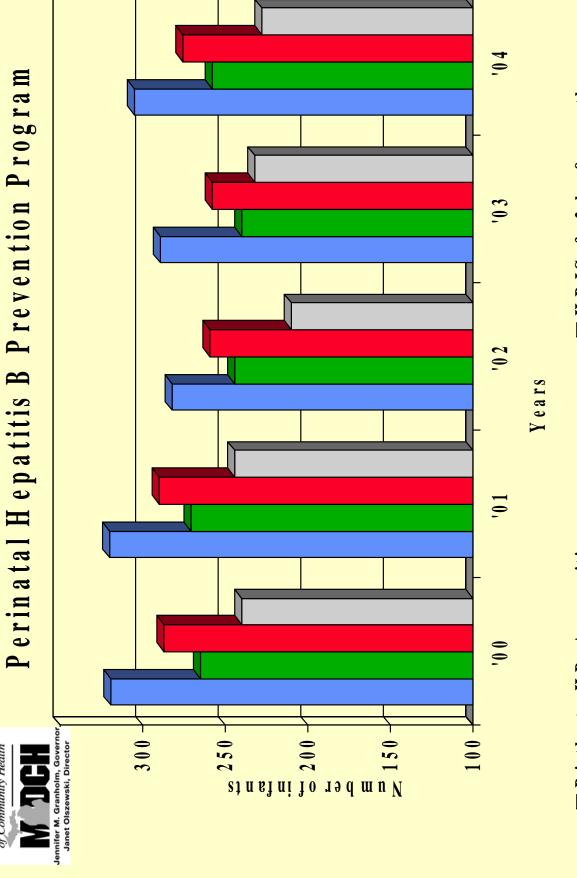
- 90% will be at risk for chronic infection
- 25% of those infected will die due to chronic liver disease

**WITH** HepB vaccine alone in a 3 or 4 dose series started at birth:

• 70% - 95% will be protected from getting HBV infection

**WITH** HepB vaccine and HBIG started at birth:

• 80% - 95% will be protected from getting HBV infection



Michigan Department of Community Health

□ Births to HBsAg-positive women

HBIG & 3 by 8 months

HBIG & 3 by 12 months

□ Post serology



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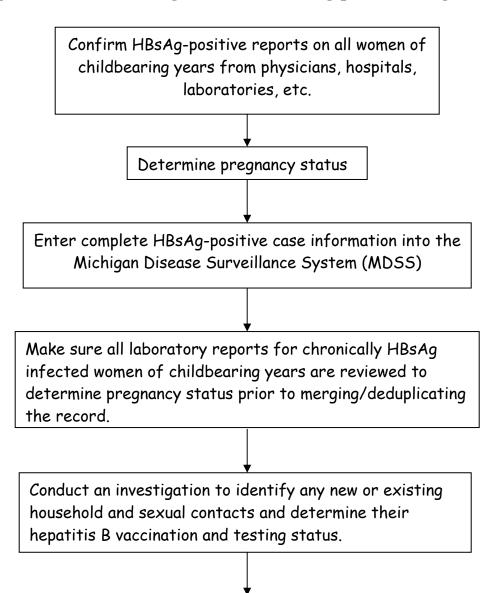
- 19. Hepatitis B Facts: Testing and Vaccination
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- 22. Special Purpose MI VFC/Immunization Programs (Universal Hepatitis B Vaccination Program for Newborns; Hospital Enrollment Form; Hospital Profile)
- 23. Hepatitis B Vaccine: What You Need to Know (Vaccine Information Sheet VIS)
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### Local Health Department Responsibilities in Reporting Hepatitis B Surface Antigen-Positive (HBsAg-positive) Pregnant Women



Forward a completed *Perinatal Hepatitis B Intake Form* (pg 12 of the Perinatal Hepatitis B Manual) and a copy of the pregnant woman's HBsAg-positive test result to the MDCH Perinatal Hepatitis B Prevention Program (PHBPP) by fax at 517-335-9855 or in southeast (SE) Michigan at 313-456-4427. To contact the PHBPP staff, call 517-335-8122 or 800-964-4487. In SE Michigan, call 313-456-4431 or 313-456-4432.

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### **Local Health Department Role in Case Management**

The Perinatal Hepatitis B Prevention Program (PHBPP) Mission: To identify hepatitis B surface antigenpositive (HBsAg-positive) women prenatally or at delivery so that their infants, household and sexual contacts can be tested and treated to prevent the spread of hepatitis B virus (HBV).

### Local Health Department (LHD) Role:

- 1. Determine pregnancy status for all reported HBsAg-positive women of childbearing years If pregnant:
  - Verify if both prenatal care provider and lab reported the HBsAg-positive result to the LHD
  - Follow-up with both prenatal care provider and lab if they did not report to help them understand reporting requirements and the PHBPP
  - Complete case information in the Michigan Disease Surveillance System (MDSS) and report to the PHBPP
- 2. Share information and coordinate case management responsibilities with the PHBPP
- 3. Contact HBsAg-positive pregnant woman
  - Explain what it means to be infected with HBV
  - Explain how she can take care of herself including regular follow-up by a medical specialist
  - Explain the care her infant will need
  - Explain the care her household and sexual contacts will need
  - Verify all household and sexual contacts, their names, dates of birth, dates of hepatitis B (hepB) vaccinations and dates and results of any hepB blood tests
  - Offer PHBPP services of vaccination and testing for the infant, household and sexual contacts

For questions or assistance please call the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

### REPORTABLE DISEASES IN MICHIGAN

### A Guide for Physicians, Health Care Providers and Laboratories

The following is a list of conditions that should be reported to the local health department without delay if the agent is identified by clinical diagnosis, direct examination, culture, serology, molecular techniques or by histopathology.

Acquired Immunodeficiency Syndrome (AIDS)

Avian influenza

**Bacillus anthracis (Anthrax)** 

Blastomyces dermatitidis

Bordetella pertussis (**Pertussis**)

Borrelia burgdorferi (Lyme Disease)

**Brucella species** 

Burkholderia pseudomallei

**Burkholderia** mallei

Calymmatobacterium granulomatis

Campylobacter jejuni

Chlamydia psittaci (**Psittacosis**)

Chlamydia trachomatis (**Genital infections**), (**LGV**)

Chlamydia trachomatis (**Trachoma**)

**Clostridium botulinum (Botulism)** 

Clostridium tetani (**Tetanus**)

Coccidioides immitis (**Coccidioidomycosis**)

**Corynebacterium diphtheriae** (**Diphtheria**)

Coxiella burnetii (Q Fever)

Cryptococcus neoformans

Cryptosporidium species

Cyclospora species

Dengue virus

Ehrlichia species

Encephalitis, viral

California serogroup

Eastern Equine

Powassan

St. Louis

Western Equine

West Nile

Unspecified

Entamoeba histolytica (Amebiasis)

Escherichia coli, O157:H7 and all other shiga toxin

positive serotypes

Francisella tularensis (Tularemia)

Giardia lamblia

Guillain-Barre Syndrome

Haemophilus ducreyi (**Chancroid**)

Haemophilus influenzae, <15 years of age, sterile site

Hantavirus

Hemolytic Uremic Syndrome (**HUS**)

Hemorrhagic fever viruses

Hepatitis, viral

Hepatitis A virus, (Anti-HAV IgM)

Hepatitis B virus, (**HBsAg**)

within 24 hours on pregnant women

Hepatitis C virus, (Anti-HCV)

Hepatitis, non-ABC

Histoplasma capsulatum

HIV, (Confirmed positive HIV serology and detection tests; CD4 counts/percents and all viral loads on people already known to be infected)

Influenza virus (Weekly aggregate counts)

Kawasaki Disease

Leptospira species

Legionella species

Listeria monocytogenes

Meningitis, viral

Meningitis, bacterial

Measles virus (Rubeola)

Mumps virus

Mycobacterium bovis

Mycobacterium leprae (**Leprosy**)

**Mycobacterium tuberculosis (Tuberculosis)** 

Neisseria gonorrhoeae (**Gonorrhea**)

Neisseria meningitidis, sterile sites (Meningococcal Disease)

**Orthopox viruses (Smallpox, Monkeypox)** 

Poliovirus

Plasmodium species (Malaria)

Rabies virus

Reye's Syndrome

Rheumatic fever

Rickettsia rickettsii (Rocky Mountain Spotted Fever)

Rickettsia species (**Typhus Group**)

Rubella virus

Salmonella species

Salmonella Typhi (Typhoid Fever)

**Severe Acute Respiratory Syndrome (SARS)** 

Shigella species

Spongioform Encephalopathy (Includes CJD)

Staphylococcus aureus, vancomycin intermediate/

resistant (VISA/VRSA)

Staphylococcus aureus, (MRSA), outbreaks only

Streptococcus pyogenes, group A, sterile sites

Streptococcus pneumoniae, sterile sites, susceptible/ resistant

Toxic Shock Syndrome

Treponema pallidum (**Syphilis**)

Trichinella spiralis (**Trichinosis**)

Varicella (**Chickenpox**)

Vibrio cholerae (Cholera)

Yellow fever virus

Yersinia enterocolitica

Yersinia pestis (Plague)

### LEGEND

**Green Bold Text** = An isolate or serum sample, where appropriate, is to be submitted to MDCH laboratory.

Report All Listed Conditions to the Local Health Department (see reverse) This reporting is expressly allowed under HIPAA Communicable Disease Rules: R 325.171, 172, 173

## DIRECTORY OF MICHIGAN HEALTH DEPARTMENTS BY COUNTY

In general, health care providers should seek consultation regarding communicable disease

prevention and control services through their local health department.

Please check your phone directory to see if there is a branch office in your community if the number listed is long distance. Write that number here:

HEALTH DEPT.	COUNTY OFFICE	AREA	PHONE	FAX	COUNTY	HEALTH DEPT.	COUNTY OFFICE	AREA	PHONE	FAX
Ξ 2	Harrisville	686	724-6757	724-9975		2	100000	010	745 5037	667 600
Ā	Allegan	269	5673-5411	673-2163	Leelanan	Lapter Co Benzie-Leelanan	Lapeer Ek Leelanan	231	256-0210	256-7399
ΑIΓ	Alpena	686	356-4507	354-0855	Lenawee	Lenawee County	Adrian	517	264-5234	264-0790
Bell	Bellaire	231	533-8670	547-0460	Livingston	Livingston County	Howell	517	546-9850	545-9685
Stan	Standish	686	846-6541	846-0431	Luce	LMAS DHD	Newberry	906	293-5107	293-5453
Haı	Hancock	906	524-6142	524-6144	Mackinac	LMAS DHD	St. Ignace	906	643-1100x14	643-7719
Has	Hastings	569	945-9516x114	945-2413	Macomb	Macomb County	Mt. Clemens	286	783-8190	493-0075
Bay	Bay City	686	895-4003	895-2083	Manistee	District #10	Manistee	231	723-3595	723-1477
Ben	Benzonia	231	256-0210	882-0143	Marquette	Marquette County	Negaunee	906	475-7844x23	475-4435
Ben	Benton Harbor	569	927-5627	926-8129	Mason	District #10	Ludington	231	845-7381	845-9374
Colc	Coldwater	517	279-9561	278-2923	Mecosta	District #10	Big Rapids	231	592-0130	592-9464
Batt	Battle Creek	569	969-6334	969-6488	Menominee	Delta/Men Dist	Menominee	906	863-4451	863-7142
Cass	Cassopolis	569	445-5280	445-5278	Midland	Midland County	Midland	686	832-6666	837-6524
Cha	Charlevoix	231	547-6523	547-0460	Missaukee	District #10	Lake City	231	839-7167	839-7908
Chel	Cheboygan	231	627-8850	627-9466	Monroe	Monroe County	Monroe	734	240-7832	240-7906
Saul	Sault Ste. Marie	906	635-3577	635-7081	Montcalm	Mid-Mich DHD	Stanton	686	831-3615	831-3666
Har	Harrison	686	539-6731	539-4449	Montmorency	District 4	Atlanta	686	785-4428	785-2217
St. J	St. Johns	686	227-3111	227-3126	Muskegon	Muskegon Co	Muskegon	231	724-4421	724-1325
Gray	Grayling	686	348-7800	348-5346	Newaygo	District 10	White Cloud	231	689-7300	689-5295
Esca	Escanaba	906	786-4111	786-7004	Oakland	Oakland County	Pontiac	248	858-1286	858-0178
Iron	Iron River	906	774-1868	265-4174	Oceana	District 10	Hart	231	873-2193	873-4248
Cha	Charlotte	517	541-2641	541-2666	Ogemaw	District 2	West Branch	686	345-5020	345-1996
Peto	Petoskey	231	347-6014	547-0460	Ontonagon	Western UP Dist	Ontonagon	906	884-4096	884-2358
Flint		810	257-1017	257-3247	Osceola	Cent MI Dist	Reed City	231	832-5532	832-1020
Gladwin	win	686	426-9431	426-6952	Oscoda	District 2	Mio	686	826-3970	826-5386
Bess	Bessemer	906	667-0200	667-0020	Otsego	NW MI Dist	Gaylord	686	732-1794	231-547-0460
Trav	Fraverse City	231	922-2718	922-2719	Ottawa	Ottawa County	Holland	616	396-5266	393-5659
Ithaca	g.	686	875-1019	875-1032	Pres. Isle	District 4	Rogers City	686	734-4723	734-3866
Hills	Hillsdale	517	437-7395x200	437-0166	Roscommon	Cent MI Dist	Prudenville	686	366-9166	366-8921
Han	Hancock	906	482-7382	482-9410	Saginaw	Saginaw Co	Saginaw	686	758-3887	758-3888
Bad	Bad Axe	686	269-9721	269-4181	St. Clair	St. Clair Co	Port Huron	810	987-5729	985-4340
Lan	Lansing	517	887-4308	887-4379	St. Joseph	Branch/Hills/St Jo	Three Rivers	569	273-2161x200	273-2452
Ionia	-	919	527-5339	527-8208	St. Joseph	Branch/Hills/St.Jo	Sturgis	569	659-4013x200	651-6090
Taw	Tawas City	686	362-6183	362-7181	Sanilac	Sanilac	Sandusky	810	648-4098	648-5806
Stan	Stambaugh	906	265-9913	265-4174	Schoolcraft	LMAS DHD	Manistique	906	341-6951	341-5230
Mt.	Mt. Pleasant	686	773-5921	773-4319	Shiawassee	Shiawassee Co	Corunna	686	743-2356	743-2362
Jacl	Jackson	517	768-1664	788-4256	Tuscola	Tuscola Co	Caro	686	673-8114	673-7490
Kal	Kalamazoo	569	373-5267	373-5060	Van Buren	VanBur-Cass DHD	Hartford	569	621-3143	621-2725
Kal	Kalkaska	231	258-8669	258-2805	Washtenaw	Washtenaw Co	Ypsilanti	734	544-6770	544-6706
Gra	Grand Rapids	616	632-7228	632-7085	Wayne (out-Wayne)	Wayne Co	Wayne	734	727-7078	727-7083
Haı	Hancock	906	482-7382	482-9410	Detroit	Detroit City	Detroit	313	876-4138	876-0070
Bal	Baldwin	231	745-4663	745-2501	Wexford	District 10	Cadillac	231	775-9942	775-4127



### **Acute Hepatitis B**

### **Case Definition**

### Clinical criteria

An acute illness with:

- Discrete onset of symptoms (e.g. fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting), and
- Jaundice or elevated serum aminotransferase levels

### Laboratory criteria

- IgM antibody to hepatitis B core antigen (anti-HBc) positive or hepatitis B surface antigenpositive (HBsAg-positive)
- IgM anti-HAV negative (if done)

### Case classification

• A confirmed case is one that meets the clinical criteria and has laboratory confirmation.

To date, asymptomatic individuals who are IgM anti-HBc positive have not been included as reportable cases. However, it is expected that as rates of acute disease continue to decline, the case definition will be expanded to include newly infected individuals identified on the basis of laboratory results alone. In expanding surveillance to include asymptomatic HBV infections, these cases will need to be distinguished from symptomatic cases to ensure accurate interpretation of surveillance data.

Adapted from Centers for Disease Control and Prevention. Guidelines for Viral Hepatitis Surveillance and Case Management. Atlanta, GA 2005

### Viral Hepatitis Case Report Acute Hepatitis B

Michigan Department of Community Health Communicable Disease and Immunization Division

			Invest	igati	on Infor	matio	on						
Investigation ID	Part of an outb	reak?			reak Nam					Referral			
	Yes No	Unkn	own										
Investigation Status					Case Stat	us			I				
New Active	Completed Su	perceded	Cancelled	l	Confi	rmed	Not a Cas	se P	robable	Susp	ect	Unknown	
Patient Status  Inpatient Outpat	ient Died		Patient Statumm/dd/yyyy	s Dat	e	Diag mm/c	gnosis Date			Onset D			
			Pat	ient	Informa	tion							
Patient ID	First			Last				N	<b>Iiddle</b>				
Street Address													
City		County				state					Zip		
Home Phone ###-###-###	1	Ext.			Other ] ###-##					Ext.			
Parent/Guardian (required	if under 18)												
First		L	ast				M	<b>Iiddle</b>					
			Ι	Dem	ographic	cs							
Sex			Date of Birth	1		A	\ge	A	ge Unit	s			
Male Female	Unknown		mm/dd/yyyy						Days	Mon	eths	Years	
Race Caucasian Africa Asian Unkn		American Other (Sp	Indian/Alaska ecify)	Nativ	ve	На	waiian/Pacij	fic Islan	der				
Ethnicity	· · · · · · · · · · · · · · · · · · ·				Worksite	s/Schoo	ol		Occu	pations/C	Frade		
Hispanic/Latino	Non-Hispanic/La	tino l	Unknown										
			Refe	erral	Informa	ation							
Person Providing Referral													
First	Last				one :#-###-###		Ex	t.	E	Cmail			
Primary Physician													
First	Last				one :#-###-###		Ex	t.	E	Cmail			
Street Address	I						I						

State

Zip

**County** 

City

Case ID First	Name	Last Name		Viral Hepat	itis Case	Report rev 06/25/2004 Page 2		
	Н	Iospital	Information	on				
Patient Hospitalized	Hospital		Hospital	City		Hospital Record No.		
Yes No Unknown								
Admission Date	Discharge Date			Days Hospitalized				
mm, dd, yyyy	nun/dd/yyyy							
	Clinical Inf	formation	on and Pat	ient History				
Place of Birth:		Did the pa	atient die froi	n hepatitis?		s, specify the date of death:		
USA Other		Yes	No Unk	rnown	mm/c	ld/yyyy		
Reason for Testing: (Check all that apply)	1							
Symptoms of acute hepatitis		Eva	luation of elev	ated liver enzymes				
Screening of asymptomatic pa	1		od / Organ doi					
Screening of asymptomatic pa (e.g., patient requested)	tient with no risk factors	Fold	low-up testing	for previous markei	of vira	ıl hepatitis		
Prenatal screening		Unk	known					
Other	_							
Is the patient symptomatic?	Is or was the patient jaund	diced?	s or was the p	patient pregnant?		, specify the due or delivery date	e:	
Yes No Unknown	Yes No Unknov	wn	Yes No	o Unknown				
Diagnosis: (Check all that apply)								
Acute hepatitis A	Acute hepatitis B	Acute he	epatitis C					
Acute hepatitis E	Chronic HBV infection	HCV info	ection (chroni	c or resolved)				
Acute non-ABCD hepatitis	Perinatal HBV infection	Hepatitis	s Delta (co- or	super-infection)				
		Diagno	ostic Tests					
	Test Name					Result		
P=Positive N=Negative UNK=Unknown								
Total antibody, hepatit:	is A virus [total ar	nti-HAV	]					
IgM antibody to hepatit:	is A virus [IgM anti	L-HAV]						
Hepatitis B surface ant:	igen [HBsAg]							
Total antibody, hepatit:	is B core antigen [T	Cotal ar	nti-HBc]					
IgM antibody, hepatitis	B core antigen [IgM	∕ anti-H	HBc]					
Antibody to hepatitis D	virus [anti-HDV]							
Antibody to hepatitis E	virus [anti-HEV]							
Antibody to hepatitis C	virus [anti-HCV]							
Supplemental anti-HCV as	ssay [e.g., RIBA]							
HCV RNA [e.g., PCR]								
anti-HCV signal to cut-off ratio								
Liver Enzyme Levels at Time of Di	agnosis							
Test Name	Result		τ	Upper Limit Normal		Date of Result		
						mm/dd/yyyy		
ALT (SGPT)								
AST (SGOT)								

Case ID Firs	st Name	Last Name	Vi	iral Hep	patitis Case Report rev 06/25/2004	Page 4
		Other Info	ormation			
Local 1			Local 2			
	I				T	
Name of Person interviewed	Re	lationship to patie	nt		Date of interview mm/dd/yyyy	
Submitted by:	Date mm/dd/yyyy	Health Depar	tment	P	hone Number ***-***	Ext.
	mm/dd/yyyy			,	***-***	
Comments or Additional Inforn	l nation					



### **Chronic Hepatitis B Infection**

### **Case Definition (\*)**

### Clinical description

Persons with chronic hepatitis B virus (HBV) may be asymptomatic. They may have no evidence of liver disease or may have a spectrum of disease ranging from chronic hepatitis to cirrhosis or liver cancer.

### Laboratory criteria

- Hepatitis B surface antigen-positive (HBsAg-positive), total anti-HBc positive (if done) and IgM anti-HBc negative, OR
- HBsAg-positive two times at least 6 months apart.

### Case classification

• A confirmed case is one that has laboratory confirmation.

\*Note: The Conference of State and Territorial Epidemiologists (CSTE) approved this case definition in June 2002 as the first published case definition for chronic HBV infection.

### **Comment:**

HBsAg-positive test results by enzyme immunoassay (EIA) that are not supported by positive test results for total anti-HBc or IgM anti-HBc should be confirmed by an additional more specific assay (e.g. neutralization assay).

Adapted from Centers for Disease Control and Prevention. Guidelines for Viral Hepatitis Surveillance and Case Management. Atlanta, GA 2005

### Viral Hepatitis Case Report Chronic Hepatitis B

Michigan Department of Community Health Communicable Disease and Immunization Division

			Invest	igatic	n Info	rmati	on					
Investigation ID	Part of an outb	reak?			reak Nan					Referral		
										mm/dd/yy	YYY	
T 4 4 C4 4	Yes No	Unkn	own		<b>G G</b>							
Investigation Status		7 1			Case Star		<b>N</b> 7	~	D 1 11	G		77 1
New Active Patient Status	Completed Si	ıperceded				irmed	Not a C		Probable			Unknown
ratient Status			Patient Statu	is Date		mm/	gnosis Dat	ie		Onset Da		
Inpatient Outpat	ient Died											
			Pat	ient I	nforma	ation						
Patient ID	First			Last					Middle			
Street Address												
City		County			1	State					Zip	
•		•									_	
Home Phone		Ext.			Other	Phone				Ext.		
###-###-###						##-####						
Parent/Guardian (required	if under 18)									•		
First		L	ast					Middle	e			
			I	Demo	graphi	cs						
Sex			Date of Birtl	h		A	Age		Age Unit	s		
Male Female	Unknown		mm/dd/yyyy						Days	Mon	ths	Years
<b>Race</b> Caucasian Africa	an American	American	Indian/Alaska	. Native	,	Н	awaiian/Pa	acific Isl	landor			
Asian Unkn		Other (Sp		i ivaiive	•	110	iwanan/1 c	icijic Isi	unuer			
Ethnicity Character	OWIL				Worksite	es/Scho	ol		Occu	pations/C	Frade	
•	Non-Hispanic/La	tino l	Unknown							•		
				orrol	Inform	otion						
Person Providing Referral			KCI	cirai.	111101111	auon						
First	Last			Pho	ne			Ext.	E			
					-###-####							
Primary Physician												
First	Last			Pho	ne -###-###			Ext.	E	Cmail		
				"""	<b> ####</b>							
C44 A 3.1												
Street Address												

State

Zip

**County** 

City

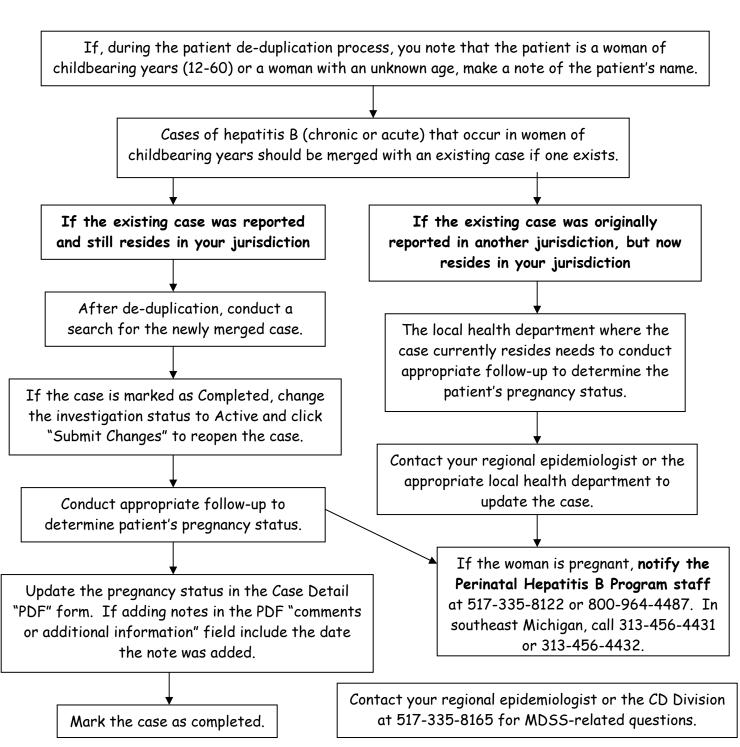
Case ID First	Name	Last Name		Viral Hepat	itis Case	Report rev 06/25/2004 Page 2		
	Н	Iospital	Information	on				
Patient Hospitalized	Hospital		Hospital	City		Hospital Record No.		
Yes No Unknown								
Admission Date	Discharge Date			Days Hospitalized				
mm, dd, yyyy	nun/dd/yyyy							
	Clinical Inf	formation	on and Pat	ient History				
Place of Birth:		Did the pa	atient die froi	n hepatitis?		s, specify the date of death:		
USA Other		Yes	No Unk	rnown	mm/c	ld/yyyy		
Reason for Testing: (Check all that apply)	1							
Symptoms of acute hepatitis		Eva	luation of elev	ated liver enzymes				
Screening of asymptomatic pa	1		od / Organ doi					
Screening of asymptomatic pa (e.g., patient requested)	tient with no risk factors	Fold	low-up testing	for previous markei	of vira	ıl hepatitis		
Prenatal screening		Unk	known					
Other	_							
Is the patient symptomatic?	Is or was the patient jaund	diced?	s or was the p	patient pregnant?		, specify the due or delivery date	e:	
Yes No Unknown	Yes No Unknov	wn	Yes No	o Unknown				
Diagnosis: (Check all that apply)								
Acute hepatitis A	Acute hepatitis B	Acute he	epatitis C					
Acute hepatitis E	Chronic HBV infection	HCV info	ection (chroni	c or resolved)				
Acute non-ABCD hepatitis	Perinatal HBV infection	Hepatitis	s Delta (co- or	super-infection)				
		Diagno	ostic Tests					
	Test Name					Result		
P=Positive N=Negative UNK=Unknown								
Total antibody, hepatit:	is A virus [total ar	nti-HAV	]					
IgM antibody to hepatit:	is A virus [IgM anti	L-HAV]						
Hepatitis B surface ant:	igen [HBsAg]							
Total antibody, hepatit:	is B core antigen [T	Cotal ar	nti-HBc]					
IgM antibody, hepatitis	B core antigen [IgM	∕ anti-H	HBc]					
Antibody to hepatitis D	virus [anti-HDV]							
Antibody to hepatitis E	virus [anti-HEV]							
Antibody to hepatitis C	virus [anti-HCV]							
Supplemental anti-HCV as	ssay [e.g., RIBA]							
HCV RNA [e.g., PCR]								
anti-HCV signal to cut-off ratio								
Liver Enzyme Levels at Time of Di	agnosis							
Test Name	Result		τ	Upper Limit Normal		Date of Result		
						mm/dd/yyyy		
ALT (SGPT)								
AST (SGOT)								

Case ID First	st Name	Last Name		Viral Hep	atitis Case Report rev 06/25/2004	Page 3
		Other In:	formation			
Local 1			Local 2			
Name of Person interviewed	R	elationship to pati	ent		Date of interview mm/dd/yyyy	
Submitted by:	Date mm/dd/yyyy	Health Depa	rtment	Pl	none Number ##-###-###	Ext.
	mini/dd/yyyy			"	***-***	
Comments or Additional Inform	 nation					



### De-duplication Process through the prolifer M. Granholm, Governor Michigan Disease Surveillance System (MDSS) for Hepatitis B Surface Antigen-Positive Women of Childbearing Years

Every lab report of hepatitis B infection in women of childbearing age requires a new assessment for pregnancy status. When processing records through your MDSS de-duplication queue at the local health jurisdiction level, please take the following steps to ensure that these cases are adequately investigated.



8 Rev 9/10/06



### Perinatal Hepatitis B

### **Case Definition (\*)**

### Clinical description

Perinatal HBV infection in the newborn can range from asymptomatic to fulminant hepatitis.

### Laboratory criteria

Hepatitis B surface antigen-positive (HBsAg-positive)

### Case classification

HBsAg positivity in any infant < 24 months of age who was born in the United States or in U.S. territories to an HBsAg-positive mother.

### **Comment:**

Infants born to HBsAg-positive mothers should receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine within 12 hours of birth, followed by the second and third doses of vaccine at 1 and 6 months of age, respectively. Post-vaccination testing for HBsAg and hepatitis B surface antibody (anti-HBs) is recommended from 3 to 6 months following completion of the vaccine series. If HBIG and the initial dose of vaccine are delayed for >1 month after birth, testing for HBsAg may determine if the infant is already infected.

\*The Conference of State and Territorial Epidemiologists (CSTE) adopted this case definition in March 1995.

Adapted from Centers for Disease Control and Prevention. Guidelines for Viral Hepatitis Surveillance and Case Management. Atlanta, GA 2005

### Viral Hepatitis Case Report Perinatal Hepatitis B Virus Infection

Michigan Department of Community Health Communicable Disease and Immunization Division

			Invest	igatio	n Informa	tion					
Investigation ID	Part of an outh	reak?			eak Name				Referra		
									mm/dd/y	УУУ	
	Yes No	Unkr	nown								
Investigation Status					Case Status						
	Completed S	upercedea	1		Confirmed			Probable			Unknow
Patient Status			Patient Statu	ıs Date		agnosis Da	ite		Onset D	ate	
Inpatient Outpa	tient Died										
			D /		<u> </u>						
D. 4: A. ID	TO: 4		Pat		nformation	1		3.61.11			
Patient ID	First			Last				Middle			
Street Address											
City		County			State					Zip	
Home Phone		Ext.			Other Phon				Ext.	-	
###-###-###					###-###-##	##					
Parent/Guardian (required	d if under 18)										
First		I	Last				Middle	e			
			I	Demo	graphics						
Sex			Date of Birtl		Simplifies	Age		Age Unit	s		
MIFI	77 1		mm/dd/yyyy			Ü				.1	V
Male Female	Unknown							Days	Мог	itns	Years
Race											
Caucasian Afric	an American		ı Indian/Alaska	ı Native	!	Hawaiian/F	Pacific Isl	ander			
Asian Unki	<i>10wn</i>	Other (Sp	oecify)								
Ethnicity					Worksites/Scl	100l		Occu	pations/0	Frade	
Hispanic/Latino	Non-Hispanic/La	atino	Unknown								
			Ref	erral	Informatio	n					
Person Providing Referra	1 ,										
First	Last			Pho			Ext.	E	Cmail		
				"""	-###-####						
Primary Physician	<del>-</del> ,			ъ			E-4	1 -	\ <b>!</b>		
First	Last			Pho			Ext.		Cmail		
11150				###	-###-####	l		1			
				###	-###-####						

State

**County** 

City

Zip

Case ID First	Name	Last Name		Viral Hepat	itis Case	Report rev 06/25/2004 Page 2		
	Н	Iospital	Information	on				
Patient Hospitalized	Hospital		Hospital	City		Hospital Record No.		
Yes No Unknown								
Admission Date	Discharge Date			Days Hospitalized				
mm, dd, yyyy	nun/dd/yyyy							
	Clinical Inf	formation	on and Pat	ient History				
Place of Birth:		Did the pa	atient die froi	n hepatitis?		s, specify the date of death:		
USA Other		Yes	No Unk	rnown	mm/c	ld/yyyy		
Reason for Testing: (Check all that apply)	-							
Symptoms of acute hepatitis		Eva	luation of elev	ated liver enzymes				
Screening of asymptomatic pa	1		od / Organ doi					
Screening of asymptomatic pa (e.g., patient requested)	tient with no risk factors	Fold	low-up testing	for previous markei	of vira	ıl hepatitis		
Prenatal screening		Unk	known					
Other	_							
Is the patient symptomatic?	Is or was the patient jaund	diced?	s or was the p	patient pregnant?		, specify the due or delivery date	e:	
Yes No Unknown	Yes No Unknov	wn	Yes No	o Unknown				
Diagnosis: (Check all that apply)								
Acute hepatitis A	Acute hepatitis B	Acute he	epatitis C					
Acute hepatitis E	Chronic HBV infection	HCV info	ection (chroni	c or resolved)				
Acute non-ABCD hepatitis	Perinatal HBV infection	Hepatitis	s Delta (co- or	super-infection)				
		Diagno	ostic Tests					
	Test Name					Result		
P=Positive N=Negative UNK=Unknown								
Total antibody, hepatit:	is A virus [total ar	nti-HAV	]					
IgM antibody to hepatit:	is A virus [IgM anti	L-HAV]						
Hepatitis B surface ant:	igen [HBsAg]							
Total antibody, hepatit:	is B core antigen [T	Cotal ar	nti-HBc]					
IgM antibody, hepatitis	B core antigen [IgM	∕ anti-H	HBc]					
Antibody to hepatitis D	virus [anti-HDV]							
Antibody to hepatitis E	virus [anti-HEV]							
Antibody to hepatitis C	virus [anti-HCV]							
Supplemental anti-HCV as	ssay [e.g., RIBA]							
HCV RNA [e.g., PCR]								
anti-HCV signal to cut-off ratio								
Liver Enzyme Levels at Time of Di	agnosis							
Test Name	Result		τ	Upper Limit Normal		Date of Result		
						mm/dd/yyyy		
ALT (SGPT)								
AST (SGOT)								

Case ID	First Name	Last Name	Viral Hepatitis Case Report rev 06/25/2004	Page 4
		Other Information con	ıt.	
<b>Comments or Additi</b>	onal Information			



### Hepatitis B Perinatal Case Report - Infant/Contact

Michigan Department of Community Health (MDCH)

Please complete this form each time a dose of hepatitis B vaccine and/or hepatitis B immune globulin (HBIG) is administered to an infant whose mother has tested hepatitis B surface antigen (HBsAg) positive or when given to her household or sexual contacts. Mail this form to MDCH, Immunization Division, P.O. Box 30195, Lansing, MI 48909, fax to 517-335-9855, or call the Perinatal Hepatitis B Prevention staff at 517-335-8122 or 800-964-4487. In southeast Michigan, mail to MDCH, Detroit Regional Office, 3056 West Grand Boulevard, Suite 3-150, Detroit, MI 48202, fax to 313-456-4427 or call 313-456-4431 or 313-456-4432. Also, please make sure to update the infant/contact's Michigan Care Improvement Registry (MCIR) record.

me miani/co	mact's Michiga	n Care improveme	ent Registry (MCII	K) ie	cora.					
PROVIDE	R									
Hospital or P	rovider Name						County			
Address										
City				Zip	Code		Telephone No.			
HBsAg PO	SITIVE MOTHI	ER		<u> </u>						
Mother's Nar	ne			DO	В		Grav		Para	
Address										
City				Zip	Code		County of Residence			
Social Securi	ty No.		Telephone No.				Emergency/Work No.			
HBsAg-posit	ive Test Result Date	;			Mom's Medical	l Recor	rd No. (if infant)			
INFANT O	R HOUSEHOLI	D/SEXUAL CONT	ACT							
Name						DOB		Sex	a □ Male □ Female	
Race/Ethnicit	☐ Alaska ☐ Other		can	Pacifi	ic Islander   B	Black	□ Caucasian	□ Hispa	nnic	
Birth Weight	(If infant)			Medical Record	i No (Ii	f infant)				
VACCINE/LAB RESULTS OF INFANT OR CONTACT										
Vaccine	Date Given	Lot #	Manufacturer	•	Dosage		Lab Results Date of Tes			
HBIG						HBsA	Δg			
Hep B #1						Anti-l	HBs			
Hep B #2						Other				
Hep B #3										
FOLLOW	-UP CARE PR	OVIDER OF IN	FANT OR CONT	TAC'	T (If differer	nt fro	m above)			
Facility Name					Provider's Nam					
Address					City			Zip Code	9	
Telephone No	 D.				County					
Name of pers	on completing					Telep	phone			

Patients may NOT be charged for cost of vaccines provided through project grant funds whether administered in public clinics or by private physicians. Vaccine may NOT BE DENIED in public clinics for failure to pay an administration fee or to make a donation to the provider.

11

DCH-0973 AUTHORITY: PA 368 of 1978



### Perinatal Hepatitis B Intake Form Fax to 517/335-9855

Fax to 517/335-9855 or call 517/335-8122 or 800/964-4487 or in southeast Michigan fax to 313/456-4427 or call 313/456-4432

Woman's name:		Da	ate of birth:	SS :	· 	
Address:				Cou	nty:	
City:	Zi	p:	Te	elephone #:		
Emergency contact name	& number:					
Race: White Black I	Hispanic Asian/	Pacific Islande	r Amer India	n Alaskan	Non-Hispan	nic
Grav Para _	For	eign Born	_			
	Wom	an's Labora	atory Report	ts:		
Hepatitis B surface antige	en (HBsAg)	Positive (+)	Negative (-)	□ Not tested	Date:	
Hepatitis B surface antibo	ody (anti-HBs)	Positive (+)	☐ Negative (-)	□ Not tested	Date:	
Date reported:	Who	o reported case	?: Lab	OB Other	r	
Lab name:			Contact:			
Reporting information ser	nt to OB office:	Y N	Date:			
		OB Inform	nation:			
OB/facility name:				EDC date	•	
Address:				City:		
Zip: Telep	ohone #:	]	Hospital to deli	ver at:		
	Household	d/Sexual Co	ntact Inform	nation:		
First/Last Name	DOB	HBIG	Hep B #1	Нер В #2	Hep B #3	Blood test date & results
Household/sexual contact	nrovider name:	<u>I</u>	1			
Address:						
Zip: Tel				· •		
CD Nurse:						

AUTHORITY: PA 368 of 1978 Rev 08/15/06



### Contacts of Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women Local Health Department Responsibilities for

If positive for anti-HBs, patient is immune and does not need additional doses of hepB vaccine. If positive for HBsAg, the patient is infected and should be referred for medical follow up. Assess immunization status for all contacts and determine if contact needs vaccine or testing. Draw contact's blood for HBsAg and hepatitis B surface antibody (anti-HBs), and then give the first dose of hepatitis B (hepB) vaccine. \* Give the third dose of hepB vaccine 4-6 months after the second dose (at least eight weeks after the second dose and at least sixteen weeks after the first dose). \* Repeat the blood test for HBsAg & anti-HBs 1-2 months after the third dose.  $^\star$ Give the second dose of hepB vaccine 1 month after the first dose. \* If both tests are negative

† PLEASE NOTE:

Also make sure to update the patient's Michigan Care Improvement Registry (MCIR) record. If you have any questions, please call the Perinatal Hepatitis B Prevention Program staff at 517-335-8122 or 800-964-4487.

In southeast Michigan, call 313-456-4431 or 313-456-4432.

**Case Report-Infant/Contact** form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual)

\*Report the vaccination dates and the date and results of the blood tests using the Hepatitis B Perinatal

If the patient has documentation they have started the series, complete the series and then test 1-2 months later.



### Follow-up Protocol for Household and Sexual Contacts

**Assess:** Immunization status for all contacts through the Michigan Care Improvement Registry (MCIR)

to determine if hepatitis B (hepB) vaccine or testing is needed. Those with a partially

completed hepB vaccination series should complete the vaccine series and then have follow-up

serology 1-2 months later.

**Test**: Exposed household contacts and sexual partners of women who test positive for hepatitis B

surface antigen (HBsAg) prenatally or at delivery to determine their hepatitis B status. The

following tests should be completed:

**HBsAg:** Determines if they are currently infected with the hepatitis B virus (HBV)

Anti-HBs: (Hepatitis B surface antibody) determines if they have protection against HBV

If both tests are **NEGATIVE**, the contact is susceptible to infection and should receive hepB vaccine. If HBsAg is positive, the patient is infected and should be referred for appropriate medical follow up. If anti-HBs is positive, and the contact had three valid doses of hepB vaccine, they are considered immune and are protected from getting HBV.

**Vaccinate:** All unvaccinated susceptible contacts with three doses of hepB vaccine:

- The first dose should be given at the same visit, but after the blood draw.
- The second dose should be given ONE MONTH after the first dose.
- The third dose should be given FOUR-SIX MONTHS after the first dose (at least eight weeks after the second dose and at least sixteen weeks after the first dose).

If there has been a sexual exposure within the last 14 days to an acutely infected HBsAg-positive woman, or a blood exposure within the last 7 days to an HBsAg-positive woman, the contact should also receive one dose of hepatitis B immune globulin (HBIG\*), calculated at 0.06 ml/kg of body weight.

**Test:** All contacts for HBsAg and anti-HBs one to two months after the third dose of hepB vaccine is

administered.

**Report**: All doses of hepB and HBIG on a *Hepatitis B Perinatal Case Report-Infant/Contact* form

(DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) and mail or fax the information to the Perinatal Hepatitis B Prevention Program (PHBPP). Update the patient's MCIR record and

ask for current telephone and address information.

For questions or assistance, please call the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

<sup>\*</sup>Suggested intervals between immune globulin preparations and live virus vaccines are 3 months.



### Local Health Department Responsibilities for Infant(s) Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

Review the Michigan Care Improvement Registry (MCIR), and/or the Official Immunization Record to determine if the infant received the hepatitis B (hepB) vaccine and the hepatitis B immune globulin (HBIG) at birth. Give a dose of single-antigen hepB vaccine at 1-2 months of age or Pediarix™ or Comvax® at 2 months of age. (If this infant weighed less than 2000 g at birth do not count the birth dose of hepB vaccine as part of the series and give three additional doses.) \*

If using Pediarix  $^m$  or Comvax  $^{\otimes}$  a dose can be given at 4 months of age.

Give the last dose of single-antigen or Pediarix $^{\text{rw}}$  hepB vaccine at 6 months of age (no sooner than 24 weeks of age), or Comvax $^{\text{co}}$  at 12-15 months of age. \*

Draw or arrange with the Perinatal Hepatitis B Case Manager to have the infant's blood tested for HBsAg & hepatitis B surface antibody (anti-HBs) at 9-18 months of age, (3 months after the completion of the vaccine series).  $^\star$  If HBsAg and anti-HBs are both negative, begin 2nd vaccine series using single-antigen hepB vaccine at (0, 1, 6 month schedule) and repeat the blood test 1-2 months after the second hepB vaccine series. \*

*Infant/Contact* form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual). Also make sure to update the patient's MCIR record. If you have any questions, please call the Perinatal Hepatitis B Prevention Program staff at 517-335-8122 or 800-964-4487. In \*Report the vaccination dates and the date and results of the blood tests using the Hepatitis B Perinatal Case Reportsoutheast Michigan, call 313-456-4431 or 313-456-4432.



### Follow-up Protocol for Infants Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

1. Review the Michigan Care Improvement Registry (MCIR), and/or the Official Immunization Record to determine if the infant received the hepatitis B (hepB) vaccine and the hepatitis B immune globulin (HBIG) at birth.

### 2. At 1-2 months of age:

- A. Give the infant a dose of single-antigen hepB vaccine at 1-2 months of age, or Pediarix<sup>TM</sup> (DTaP-HepB-IPV) or Comvax® (HepB-Hib) at 2 months of age, intramuscularly in the anterolateral thigh (at least 4 weeks after the first dose).
- B. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) and mail or fax the information to the Perinatal Hepatitis B Prevention Program (PHBPP).
- C. Flag the infant's chart as a reminder of when the next dose is due, ask the parent for current telephone and address information and update the patient's MCIR record.
- 3. If using Pediarix<sup>TM</sup> or Comvax®, a dose of the hepB vaccine can be given at the 4 month-visit intramuscularly in the anterolateral thigh.
  - A. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
  - B. Flag the infant's chart as a reminder of when the next dose is due, ask the parent for current telephone and address information and update the patient's MCIR record.

### 4. At 6 months of age:

- A. Give the infant the last dose of single-antigen hepB vaccine or Pediarix<sup>TM</sup> at 6 months of age, or if using Comvax® give the last dose at 12-15 months of age, intramuscularly in the anterolateral thigh (at least 8 weeks after the second dose, at least 16 weeks after the first, and no earlier than 24 weeks of age).
- B. Inform the parent that the infant will need a blood test at 9-18 months of age, (3 months after the completion of the hepB vaccine series), to see if the baby has been protected from the hepatitis B virus.
- C. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
- D. Flag the infant's chart as a reminder of when the blood test is due, ask the parent for current telephone and address information, and update the patient's MCIR record.

### 5. At nine to eighteen months of age (3 months after the completion of the vaccine series):

- A. Draw or refer the infant for **HBsAg** and hepatitis B surface antibody (**anti-HBs**) testing. To make arrangements for free testing contact the PHBPP case manager.
- B. Complete a *Hepatitis B Perinatal Case Report-Infant/Contact* form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) and mail or fax the information to the PHBPP.
- C. Ask the parent for current telephone and address information and update the patient's MCIR record.

If you have questions, or need test kits, please call the PHBPP staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

## Hepatitis B Vaccine and Hepatitis B Immune Globulin Administration for Infants

١.	*** OOOO == 11 == 1 == 1 == 1 == 1 == 1	* ~ 0000 = -4 = -5 = 1
Maternal Status	iniants greater than or equal to 2000 g	mants less than 2000 g
Hepatitis B Surface	Give single-antigen hepatitis B (hepB) vaccine and hepatitis	Give single-antigen hepB vaccine and HBIG within 12
Antigen (HBsAg) positive	B immune globulin (HBIG) within 12 hours of birth.	hours of birth.
-	Complete the hepB vaccine series with single-antigen	Do not count the hepB birth dose as the first dose. Initiate
	doses at 1-2 and 6 months of age or hepB-containing	the full hepB vaccine series with single-antigen doses at 1,
	2, 4, and 12-15 months of age depending on the	z-s and o months of age of hepp-containing combination vaccines given at 2, 4, and 6 months of age, or 2, 4, and
	combination product used. (Combination vaccines cannot be given before 6 weeks of age.)	12-15 months of age depending on the combination product used. (Combination vaccines cannot be given
		before 6 weeks of age.)
	Test for hepatitis B surface antibody (anti-HBs) and HBsAg at 9-18 months of age (3 months after the completion of the hepB vaccine series).	Test for anti-HBs and HBsAg at 9-18 months of age (3 months after the completion of the hepB vaccine series).
		-
	If the infant is HBsAg and anti-HBs negative, repeat the 3 dose hepB vaccine series and retest 1-2 months after the	If infant is HBsAg and anti-HBs negative, repeat the 3 dose
	completion of the second vaccine series.	hepB vaccine series and retest 1-2 months after the completion of the second vaccine series
	If infant is HBsAg-positive, refer to a specialist.	
		If infant is HBsAg-positive, refer to a specialist.
HBsAg status unknown	Test mother STAT for HBsAg.	Test mother STAT for HBsAg.
	Give single-antigen hepB vaccine within 12 hours of birth	Give single-antigen hepB vaccine and HBIG within 12
	or sooner if found to be HBsAg-positive.	nours of pirm in morn's status remains unknown of in found to be HBsAg-positive.
	Follow the recommended vaccination schedule.	Follow the recommended vaccination schedule.
HBsAg-negative	Give single-antigen hepB vaccine at birth or prior to	Give single-antigen hepB vaccine to medically stable
	hospital discharge.	infants at 30 days of chronologic age or at hospital discharge if before 30 days of chronologic age.
	Follow the recommended vaccination schedule.	
		Follow the recommended vaccination schedule.
	Anti-HBs and HBsAg testing is not recommended.	Anti-HBs and HBsAg testing is not recommended.

<sup>\*</sup> All doses of hepB vaccine and HBIG must be entered into the Michigan Care Improvement Registry (MCIR). This may be done by entering the data directly into the MCIR or on the Electronic Birth Certificate (EBC). It is important that all providers who see the baby in a neonatal intensive care unit (NICU) or in an office enter the dose information into MCIR so that a follow-up provider knows when to give the next dose.

• Adapted from: Saari TN and the Committee on Infectious Diseases, Immunization of Preterm and Low Birth Weight Infants. *Pediatrics* 2003; 112:193-198.



### Vaccination Schedule for Infants Born to Hepatitis B Surface Antigen-Positive (HBsAg-positive) Women

Dose	Single-antigen vaccine	Combination	on Vaccines
	Engerix-B <sub>®</sub> or	Pediarix™	Comvax®
	Recombivax HB® (HepB)	(DTaP-HepB-IPV)	(HepB-Hib)
1	Birth*	Birth (only use single	Birth (only use single
		antigen vaccine)*	antigen vaccine)*
2	1-2 months	2 months	2 months
3	6 months	4 months	4 months
4	NA	6 months	12-15 months

<sup>\*</sup> Both single-antigen hepatitis B (hepB) vaccine (0.5mL) and hepatitis B immune globulin (HBIG) (0.5mL) should be given within 12 hours of birth. HBIG and hepB vaccine should be administered intramuscularly at different sites.

### **Combination Vaccines**

After single-antigen hepB vaccine is given at birth, an additional 3 doses of a hepB-containing combination vaccines can be given to complete the series, starting at 6 weeks of age for those whom none of the antigens are contraindicated.

Comvax®: The combination hepatitis B and *Haemophilus influenzae* type B (Hib) vaccine Comvax® is NOT to be given at birth. Comvax® is licensed for use as a 3-dose series beginning at 6 weeks of age. This vaccine may be used when neither antigen is contraindicated.

Pediarix<sup>TM</sup>: The combination DTaP-hepatitis B-inactivated poliovirus vaccine Pediarix<sup>TM</sup> is NOT to be given at birth. Pediarix<sup>TM</sup> is licensed for use as a 3-dose series beginning at 6 weeks to 7 years of age. This vaccine may be used when none of the antigens are contraindicated and only as a primary series.

### **Pre-term Infants**

For pre-term infants who weigh less than 2000 g at birth, administer hepB vaccine and HBIG within 12 hours of birth. The initial hepB vaccine dose should not be counted as part of the 3-dose hepB vaccine series. Three additional doses of hepB vaccine should be administered beginning at chronological age of 1 month.

**Note:** The use of brand names is not meant to preclude the use of other comparable licensed hepB-Hib or DTaP-hepB-IPV combination vaccines.

Modified from Resolution: 10/03-2, Advisory Committee on Immunization Practices (ACIP), Vaccines for Children (VFC) Program.

### **Hepatitis B Facts: Testing and Vaccination**

### — Who should be vaccinated? —

The following persons should receive routine hepatitis B vaccination according to the Centers for Disease Control and Prevention (CDC):

### Routine vaccination:

- · All newborns at birth prior to hospital discharge
- All children and teens ages 0 through 18 years
- All persons who wish to be protected from hepatitis B virus (HBV) infection. CDC states it is not necessary for the patient to disclose a risk factor in order to receive hepatitis B vaccine.

### Persons who are at risk for sexual exposure:

- Sexually active persons who are not in long-term mutually monogamous relationships
- Sex partners of HBsAg-positive persons
- Persons seeking evaluation or treatment for an STD
- Men who have sex with men

### Persons at risk for infection by percutaneous or mucosal exposure to blood:

- Current or recent injection-drug users
- Household contacts of HBsAg-positive persons
- Residents and staff of facilities for developmentally challenged persons
- Healthcare and public safety workers with reasonably anticipated risk for exposure to blood or blood-contaminated body fluids
- Persons with end-stage renal disease and those receiving dialysis.

### Others:

- Travelers to areas with moderate or high rates of HBV infection
- Persons with chronic (life-long) liver disease
- Persons with HIV infection

All refugees, immigrants, and adoptees from countries with moderate or high rates of HBV infection should be screened. Adults should discuss their need or desire for hepatitis B vaccination with their healthcare providers.

### — Hepatitis B lab nomenclature —

**HBsAg:** *Hepatitis B surface antigen* is a marker of infectivity. Its presence indicates either acute or chronic HBV infection.

**anti-HBs:** Antibody to hepatitis B surface antigen is a marker of immunity. Its presence indicates an immune response to HBV infection, an immune response to vaccination, or the presence of passively acquired antibody. (It is also known as **HBsAb**, but this abbreviation is best avoided since it is often confused with abbreviations such as HBsAg.)

anti-HBc (total): Antibody to hepatitis B core antigen is a nonspecific marker of acute, chronic, or resolved HBV infection. It is not a marker of vaccine-induced immunity. It may be used in prevaccination testing to determine previous exposure to HBV infection. (It is also known as HBcAb, but this abbreviation is best avoided since it is often confused with other abbreviations.)

**IgM anti-HBc:** *IgM antibody subclass of anti-HBc.* Positivity indicates recent infection with HBV (within the past 6 mos). Its presence indicates acute infection.

**HBeAg:** *Hepatitis B "e" antigen* is a marker of a high degree of HBV infectivity, and it correlates with a high level of HBV replication. It is primarily used to help determine the clinical management of patients with chronic HBV infection.

**Anti-HBe:** Antibody to hepatitis B "e" antigen may be present in an infected or immune person. In persons with chronic HBV infection, its presence suggests a low viral titer and a low degree of infectivity.

**HBV-DNA:** *HBV Deoxyribonucleic acid* is a marker of viral replication. It correlates well with infectivity. It is used to assess and monitor the treatment of patients with chronic HBV infection.

### — Screening before vaccination —

Serologic testing prior to vaccination may be undertaken based on your assessment of your patient's level of risk and your or your patient's need for definitive information (see information in the left column). If you decide to test, draw the blood first, and then give the first dose of vaccine at the same office visit. Vaccination can then be continued, if needed, based on the results of the tests. If you are not sure who needs hepatitis B screening, consult your state or local health department.

Tests	Results	Interpretation	Vaccinate?
HBsAg anti-HBc anti-HBs	negative negative negative	susceptible	vaccinate if indicated
HBsAg anti-HBc anti-HBs	negative negative positive with ≥ 10mIU/mL*	immune due to vaccina- tion	no vaccination necessary
HBsAg anti-HBc anti-HBs	negative positive positive	immune due to natural infection	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	acutely infected	no vaccination necessary
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	chronically infected	no vaccination necessary (may need treatment)
HBsAg anti-HBc anti-HBs	negative positive negative	four interpretations possible <sup>†</sup>	use clinical judgment

\*Postvaccination testing, when it is recommended, should be performed 1–2 months after the last dose of vaccine. Infants born to HBsAg-positive mothers should be tested 3–9 months after the last dose of vaccine.

- <sup>†</sup>1. May be recovering from acute HBV infection
- May be distantly immune, but the test may not be sensitive enough to detect a very low level of anti-HBs in serum
- 3. May be susceptible with a false positive anti-HBc
- 4. May be chronically infected and have an undetectable level of HBsAg present in the serum

### Managing chronic HBV infection —

When you identify a patient who is chronically infected with HBV, make sure you consult a specialist knowledgeable in the treatment of liver disease so your patient's care is optimized. Chronically infected persons need medical evaluation every 6–12 months to assess the status of their liver health and their need for antiviral therapy, as well as to screen for liver cancer. Persons with HBV infection should also be educated about their disease and how to protect others.

Household members and sex partners should be tested for HBV infection and given the first dose of hepatitis B vaccine at the same visit. (Vaccinating a person who has already been infected will do no harm). If testing indicates HBV susceptibility, complete the hepatitis B vaccination series. If testing indicates HBV infection, consultation and further care with a physician knowledgeable about chronic hepatitis B is needed.

www.immunize.org/catg.d/p2110.pdf • Item #P2110 (1/07)



# Recommended Dosages of Hepatitis B Vaccine and Hepatitis B Immune Globulin

Henstitis R	Engerix-B® (GlaxoS	(GlaxoSmithKline)	Recombivax HB® (Merck)	(Merck)
Vaccine Recipient	Pediatric Formulation	Adult	Pediatric/Adolescent Formulation	Adult
	10mcg (0 5ml)	Orange Can	Smcg (0 5m]	Green Can
	(or in prefilled syringes)	20mcg (1mL)	(2000)	10mcg (1mL)
Newborns born to HBsAg (+)	$10 \text{mcg} (0.5 \text{mL})^{1} \& (0.5 \text{mL})$		$5 \operatorname{mcg} (0.5 \operatorname{mL})^{1} \& (0.5 \operatorname{mL})$	
mothers*	HBIG		HBIG	
	within 12 hours of birth		within 12 hours of birth	
Newborns born to mothers	$10 \text{mcg} (0.5 \text{mL})^{1}$		5mcg (0.5mL) <sup>1</sup>	
whose HBsAg status is	within 12 hours of birth; (0.5mL)		within 12 hours of birth; (0.5mL)	
unknown*	HBIG should also be given		HBIG should also be given	
	within 7 days if mom's status		within 7 days if mom's status	
	remains unknown or sooner if		remains unknown or sooner if	
	found to be HBsAg (+)		found to be HBsAg (+)	
Newborns born to HBsAg (-)				
mothers* and children up to 10	$10 \text{mcg} (0.5 \text{mL})^{1/3}$		$5 \text{mcg } (0.5 \text{mL})^{1/2}$	
years of age				
11-19 years <sup>4</sup>	10mcg (0.5mL)		5mcg (0.5mL)	
20 + years <sup>4</sup>		20mcg (1mL)		10mcg (1mL)
Dialysis patients		40mcg (2mL) <sup>5</sup>		Blue Cap
				40mcg (1mL) <sup>6</sup>

\*For newborns weighing less than 2000 g, see (Hepatitis B Vaccine and Hepatitis B Immune Globulin Administration for Infants pg 12 of the Perinatal Hepatitis B Manual)

Hepatitis B vaccine is strongly recommended at birth. This birth dose MUST be a single antigen vaccine. A 4-dose hepatitis B series is approved in conjunction with Pediarix® or Comvax®.

Merck's Comvax® (hepatitis B and Hib) is a combination vaccine that may be used as an alternative to single antigens for administration to any child 6 weeks of age and older at 2, 4 and 12-15 months of age when neither antigen is contraindicated. This combination vaccine is NOT to be given at birth.

combination vaccine is NOT to be given at birth. It may be given to any child between the ages of 6 weeks to 7 years of age for whom none of the antigens are contraindicated, and only as a \*GlaxoSmithKline's Pediarix® (DTaP, hepatitis B and IPV) is a combination vaccine that may be used as an alternative to single antigens for administration at 2, 4 and 6 months of age. This primary series. (The primary series is considered the first three doses of DTaP and IPV vaccines.)

<sup>\*</sup>HBIG (hepatitis B immune globulin) All susceptible contacts of an HBsAg (+) person, should receive a (0.06 mL/kg) dose of HBIG, within 7 days of a blood exposure, or within 14 days of a sexual exposure, along with the hepatitis B vaccine series.

<sup>&</sup>lt;sup>5</sup>Engerix-B® dialysis formulation is approved for adult hemodialysis patients by using 2 x 20mcg/1mL in one or two injections at 0, 1, 2 and 6 months.

Recombivax HB@ dialysis formulation is approved for pre-dialysis and dialysis patients in a three dose series of 40mcg/1mL at 0, 1, and 6 months.

be administered 4-6 months after the first dose. If the 2-dose regimen is used, documentation must indicate that the adolescent received 2 adult 10mcg (1ml) doses of the Merck brand. If a child Merck's 2-dose (adolescent) hepatitis B vaccine series (using the adult formulation of Recombivax HB® 10mcg, 1 ml) is approved only for adolescents 11-15 years of age. The second dose should starts the hepatitis B series prior to age 11, starts the hepatitis B series between the ages of 11 and 15 with a hepatitis B vaccine other than the adult formulation of the Merck product, or completes the series after age 15, a 3-dose series should be administered. This specific use of vaccine is not included in the VFC program.

GlaxoSmithKline's Twinrix® (hepatitis A and hepatitis B) is a combination vaccine that may be used as an alternative to single antigens for persons 18 years of age and older. It is recommended for administration at intervals of 0, 1 & 6 months to any adult for whom neither antigen is contraindicated.

For specific prescribing information, precautions, contraindications, and specific dialysis formulations, refer to product inserts.



### Eligibility and Ordering Protocol: Hepatitis B Vaccine and Hepatitis B Immune Globulin for Infants and Contacts of Hepatitis B Surface Antigen-Positive Women

### **Summary:**

Hepatitis B (hepB) vaccine and hepatitis B immune globulin (HBIG) are available on an as-needed basis for administration in private provider offices, hospitals, local health departments, health centers, and clinics for the care of those clients currently enrolled in the Perinatal Hepatitis B Prevention Program (PHBPP).

### Eligibility for those currently enrolled in the PHBPP:

HepB vaccine and HBIG:

• Infants born to hepatitis B surface antigen-positive (HBsAg-positive) women

### HepB vaccine:

• Susceptible household and sexual contacts of HBsAg-positive women

### HBIG\*:

- Susceptible household and sexual contacts of HBsAg-positive women should receive HBIG within 7 days of an identifiable blood exposure.
- Susceptible sexual contacts of acutely HBsAg-positive women should receive HBIG within 14 days of a sexual exposure.

Infants born to HBsAg-positive women should receive 3 doses of single-antigen hepB vaccine at 0, 1-2 and 6 months of age. If using hepB-containing combination vaccines, give a single-antigen dose of hepB vaccine within 12 hours of birth and complete the series with doses at 2, 4 and 6 months of age if using Pediarix<sup>TM</sup>; or with doses at 2, 4, & 12-15 months of age if using Comvax®. Post-vaccination serology should be done at 9-18 months of age (3 months after the completion of the hepB vaccine series). Susceptible household and sexual contacts of HBsAg-positive women should receive 3 doses of hepB vaccine on a schedule of 0, 1 and 4-6 months with post-vaccination serology 1-2 months after the completion of the vaccine series.

### **HepB Vaccine/HBIG Orders:**

All private providers, hospitals, health centers, and clinics may order hepB vaccine from their local health department (LHD). The LHD can place orders through the Michigan Department of Community Health (MDCH) Biologic Distribution office either by faxing a request to 517-335-9039 or by calling 517-335-9040. Requests for HBIG should be forwarded to the PHBPP.

### Private Providers, Hospitals, Health Centers, and Clinics:

Whenever hepB vaccine and/or HBIG are administered to eligible infants or contacts in the PHBPP a *Hepatitis B Perinatal Case Report-Infant/Contact* Form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) should be completed and forwarded to the PHBPP Case Manager. Private providers, hospitals, health centers, and clinics should account for the hepB vaccine they have administered on the *VFC Programs Vaccine Doses Administered Reporting Form*. These forms should be submitted to the LHD.

### **Local Health Departments:**

Whenever hepB vaccine and/or HBIG are administered by a LHD to eligible infants or contacts in the PHBPP a *Hepatitis B Perinatal Case Report-Infant/Contact* Form (DCH-0973, pg 11 of the Perinatal Hepatitis B Manual) should be completed and forwarded to the PHBPP Case Manager. LHDs should account for the hepB vaccine they have administered on the *VFC Programs Vaccine Doses Administered Reporting Form*. The LHDs should also account for hepB vaccine and HBIG on the *Local Health Department Monthly Vaccine Inventory Report*. The Michigan Care Improvement Registry (MCIR) or other software packages may be used to produce similar reports. These forms should be mailed monthly to the MDCH Division of Immunization or faxed to 517-335-9855.

For additional information, please call the PHBPP program staff at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

<sup>\*</sup>Suggested intervals between immune globulin preparations and live virus vaccines are 3 months.

### **Special Purpose Michigan VFC/Immunization Programs**

### **Universal Hepatitis B Vaccination Program for Newborns**

To encourage the immunization of **all** newborns with the birth dose of hepatitis B vaccine before discharge from the hospital, MDCH makes vaccine available to hospitals for all newborns, regardless of VFC status. The *Universal Hepatitis B Vaccination Program for Newborns - Hospital Enrollment Form* (Section II - Pages 13-15) is used to enroll birthing hospitals in this component of the VFC Program and must be updated and submitted annually. Assessment of VFC eligibility is required to comply with federal regulations. However, the vaccine is available for **all** newborns, regardless of VFC status. Screening of infants who receive hepatitis B vaccine through the Universal Hepatitis B Vaccination Program may be accomplished by having each child's eligibility status (Medicaid, uninsured, American Indian/Alaskan Native, underinsured, insured) documented somewhere in their medical record. If this documentation already exists in the record, additional screening is not needed. For example, if the child is enrolled in Medicaid or a private health plan, a photocopy of their health plan card in the chart is sufficient. For children who are uninsured or American Indian/Alaskan Native, documentation of these eligibility criteria in the chart is adequate.

Hospitals are required to report hepatitis B vaccinations to the Michigan Care Improvement Registry (MCIR). The easiest way to submit this data is to note the immunization on the electronic birth certificate (EBC). The data may also be provided to the MCIR by other methods.

### VACCINES FOR CHILDREN (VFC) PROGRAM Universal Hepatitis B Vaccination Program for Newborns Hospital Enrollment Form Year 2006/2007 Page 1 of 3

VFC PIN # (Required)
(For Local Health Department Use Only)

Please Type or Pri	int						
Name of Hospital:							
Physician:							
Last	Hospital:  Last Name  Address: Street  Address: Ance: Area Code  Name: Last Name  Last Name  License #:  Ance Code  Rural Health Center (Rich Park Name)		First				M.I.
Shipping Address:_							
	Street	Suite #		City			Zip
Mailing Address:							
(if different)	Street	Suite #		City			Zip
Telephone: (	)	Fax: (					
Contact Name:							
o maot i tamo.	Last Name		First				M.I.
Medical License #:		Medicaid Pro	vider #	<u> </u>			
ls your hospital a:	•	· · · · · · · · · · · · · · · · · · ·		′es ′es		No No	
* FQHCs and RHCs a	are health care clinics	that have applied for and red	ceived f	ederal ap	prov	al to se	rve medically

To participate in the Universal Hepatitis B Vaccination Program for Newborns and receive federally procured vaccine at no cost, I, on behalf of the hospital listed above and all the practitioners, nurses, and others associated with this health delivery facility, agree to do the following:

- 1. Administer VFC vaccines only to newborns in accordance with the immunization schedule, dosages and contraindications established by the Advisory Committee on Immunization Practices (ACIP) and the VFC resolutions issued by the ACIP. Any exceptions these guidelines practice must be based on: a) the attending physician's medical judgment, in accordance with accepted medical practice; or b) a reasonable belief that a specific requirement contradicts the law in my state pertaining to religious or other exemptions.
- 2. Maintain medical records pertaining to the Universal Hepatitis B Vaccination Program for Newborns for a period of at least 3 years. If requested, the hospital named above will make such records available to the local health department, the state or the Department of Health and Human Services (DHHS).
- 3. Provide eligibility information in each child's medical record (see Section II Page 6 for more details).
- 4. Provide a current Vaccine Information Statement (VIS) that includes the Michigan Care Improvement Registry (MCIR) statement and maintain records in accordance with the *National Childhood Vaccine Injury Act (NCVIA)*.
- 5. Not impose a charge for the cost of the vaccine.

under-served populations using federal grant funds.

6. Not impose a charge for the administration of the vaccine that is higher than the maximum fee of \$16.75 per injection as established by DHHS.

### VACCINES FOR CHILDREN (VFC) PROGRAM Universal Hepatitis B Vaccination Program for Newborns - Hospital Enrollment Form Year 2006/2007 Page 2 of 3

- 7. Report hepatitis B immunizations of any newborn immunized at the hospital directly to the Michigan Care Improvement Registry (MCIR) via the electronic birth certificate (EBC) worksheet.
- 8. Use the State's *Official Certificate of Immunization* (green immunization record card) or a printed record from the MCIR to record doses of vaccine administered for the patient's personal record.
- 9. Not deny administration of a federally procured vaccine to a child because the child's parent, guardian, or individual of record is unable to pay the administration fee.
- 10. Comply with state and local health department requirements for ordering vaccine.
- 11. Comply with the Centers for Disease Control and Prevention's (CDC) Recommendations for Handling and Storage of Vaccines. In the event that vaccines obtained through the programs are wasted due to expiration, negligence and/or improper vaccine storage and handling practices, the hospital will reimburse the Michigan Department of Community Health (MDCH) for the replacement cost of vaccines wasted.
- 12. Allow the local health department to conduct a CDC-based VFC site visit, including access to 30 patient charts for a review of immunization documentation and eligibility screening. Agree to work with the local health department to implement any corrective actions as a result of the site visit.
- 13. Follow appropriate vaccine management procedures such as submitting regular doses administered reports to the local health department, maintaining accurate thermometers and appropriate temperatures in refrigerators and freezers where vaccine is stored, monitoring refrigerator and freezer temperatures twice daily in units where vaccine is stored, and notifying the local health department when state-supplied vaccine has wasted or will expire within three months.
- 14. Document according to *Statute 42 US Code 300aa-25* and CDC requirements (see Section II, page 22).

The hospital may terminate this agreement at any time. The State may terminate this agreement at any time if I fail to comply with these requirements. Upon termination, the hospital agrees to return all publicly provided vaccines to the local health department.

Physician (Please print or type Physician's name)	Title (MD, DO)
Physician's signature	Date

### VACCINES FOR CHILDREN (VFC) PROGRAM Universal Hepatitis B Vaccination Program for Newborns - Hospital Enrollment Form Year 2006/2007 Page 3 of 3

**Eligibility Criteria** 

September 1, 2006

This document provides shipping information and is used to develop annual population estimates that are submitted to the Centers for Disease Control and Prevention (CDC) and used by CDC to determine Michigan's annual allocation of federal funds. The form is also used to compare estimated vaccine needs with actual vaccine supply.

Profile Table: The following information must be based on data rather than estimates and should reflect the number of children expected to be born in a year. Please document the data source.

Number of

**Births** 

Resource Book For VFC Providers

Enrolled in Me	edicaid			
Uninsured				
American Indi	an/Alaskan Native			
Underinsured/	Fully insured/Private Pay	(includes MI-Child)		
ANNUAL TO	TALS			
Registry Provider Vaccine	ed to determine profile (pl Data (MCIR) PREFERRE Encounter Data Replacement Data dering Data	ED	aid Claims Data	
Clinic/Site Deli	very Hours:			
Monday Tuesday Wednesday	AM to	0 0 0	PM PM PM	to _ to

22

Section II - Page 30

### HEPATITIS B VACCINE

### WHAT YOU NEED TO KNOW

### 1 Why get vaccinated?

### Hepatitis B is a serious disease.

The hepatitis B virus (HBV) can cause short-term (acute) illness that leads to:

- · loss of appetite
- diarrhea and vomiting
- tiredness
- jaundice (yellow skin or eyes)
- pain in muscles, joints, and stomach

It can also cause long-term (chronic) illness that leads to:

- liver damage (cirrhosis)
- · liver cancer
- death

About 1.25 million people in the U.S. have chronic HBV infection.

Each year it is estimated that:

- 80,000 people, mostly young adults, get infected with HBV
- More than 11,000 people have to stay in the hospital because of hepatitis B
- 4,000 to 5,000 people die from chronic hepatitis B

Hepatitis B vaccine can prevent hepatitis B. It is the first anti-cancer vaccine because it can prevent a form of liver cancer.

### 2 How is hepatitis B virus spread?

Hepatitis B virus is spread through contact with the blood and body fluids of an infected person. A person can get infected in several ways, such as:

- by having unprotected sex with an infected person
- by sharing needles when injecting illegal drugs
- · by being stuck with a used needle on the job
- during birth when the virus passes from an infected mother to her baby

About 1/3 of people who are infected with hepatitis B in the United States don't know how they got it.

### Hepatitis B

7/11/2001

### Who should get hepatitis B vaccine and when?

- 1) Everyone 18 years of age and younger
- 2) Adults over 18 who are at risk

Adults at risk for HBV infection include:

- people who have more than one sex partner in 6 months
- men who have sex with other men
- sex contacts of infected people
- people who inject illegal drugs
- health care and public safety workers who might be exposed to infected blood or body fluids
- household contacts of persons with chronic HBV infection
- hemodialysis patients

If you are not sure whether you are at risk, ask your doctor or nurse.

✓ People should get 3 doses of hepatitis B vaccine according to the following schedule. If you miss a dose or get behind schedule, get the next dose as soon as you can. There is no need to start over.

Hepatitis B Vaccination Schedule		WHO?						
		Infant whose mother is infected with HBV	Infant whose mother is <i>not</i> infected with HBV	Older child, adolescent, or adult				
w	First Dose	Within 12 hours of birth	Birth - 2 months of age	Any time				
H E N	Second Dose	1 -2 months of age	1 - 4 months of age (at least 1 month after first dose)	1 - 2 months after first dose				
?	Third Dose	6 months of age	6 - 18 months of age	4 - 6 months after first dose				

- The second dose must be given at least 1 month after the first dose.
- The third dose must be given at least 2 months after the second dose and at least 4 months after the first.
- The third dose should *not* be given to infants under 6 months of age, because this could reduce long-term protection.

Adolescents 11 to 15 years of age may need only two doses of hepatitis B vaccine, separated by 4-6 months. Ask your health care provider for details.

Hepatitis B vaccine may be given at the same time as other vaccines.

### 4

### Some people should not get hepatitis B vaccine or should wait

People should not get hepatitis B vaccine if they have ever had a life-threatening allergic reaction to baker's yeast (the kind used for making bread) or to a previous dose of hepatitis B vaccine.

People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting hepatitis B vaccine.



Ask your doctor or nurse for more information.

### 5

### What are the risks from hepatitis B vaccine?

A vaccine, like any medicine, is capable of causing serious problems, such as severe allergic reactions. The risk of hepatitis B vaccine causing serious harm, or death, is extremely small.

Getting hepatitis B vaccine is much safer than getting hepatitis B disease.

Most people who get hepatitis B vaccine do not have any problems with it.

### Mild problems

- soreness where the shot was given, lasting a day or two (up to 1 out of 11 children and adolescents, and about 1 out of 4 adults)
- mild to moderate fever (up to 1 out of 14 children and adolescents and 1 out of 100 adults)

### Severe problems

• serious allergic reaction (very rare)



### What if there is a moderate or severe reaction?

### What should I look for?

Any unusual condition, such as a serious allergic reaction, high fever or unusual behavior. Serious allergic DCH-0450

reactions are extremely rare with any vaccine. If one were to occur, it would be within a few minutes to a few hours after the shot. Signs can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

### What should I do?

- Call a doctor, or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS web site at www.vaers.org, or by calling 1-800-822-7967.

VAERS does not provide medical advice

### 7

### The National Vaccine Injury Compensation Program

In the rare event that you or your child has a serious reaction to a vaccine, a federal program has been created to help you pay for the care of those who have been harmed.

For details about the National Vaccine Injury Compensation Program, call 1-800-338-2382 or visit the program's website at www.hrsa.gov/osp/vicp

### $\overline{8}$

### How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department's immunization program. 1-888-767-4687
- Contact the Centers for Disease Control and Prevention (CDC):
  - -Call 1-800-232-4636 (1-800-CDC-INFO) or 1-888-443-7232
  - -Visit the National Immunization Program's website at www.cdc.gov/nip or CDC's Division of Viral Hepatitis website at www.cdc.gov/hepatitis





### U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention National Immunization Program

Vaccine Information Statement

Hepatitis B (7/11/01)

42 U.S.C. § 300aa-26

AUTH: P.H.S., Act 42, Sect. 2126.

To allow medical care provider(s) accurate immunization status information, an immunization assessment, and a recommended schedule for future immunizations, information will be sent to the Michigan Care Improvement Registry. Individuals have the right to request that their medical care provider not forward immunization information to the Registry.

### Important Vaccine Information Statement (VIS) Facts

### VIS now posted on MDCH website

The English language Vaccine Information Statements (VIS) are now posted on our website. We are also in the process of posting the foreign language VIS.

In Michigan, it is important that vaccine recipients, their parents, or their legal representatives be given the Michigan version of the VIS because they include information about the Michigan Care Improvement Registry (MCIR). By state law, parents must be informed about MCIR. Vaccine Information Statements that are obtained from other sources (e.g., from the CDC or IAC websites) do not contain information about MCIR.

www.michigan.gov/immunize

### Foreign Languages

The VIS are available in 33 foreign languages. They include information about MCIR. When the foreign language VIS is not the most current version, parents should also be given the current English version. To receive the VIS in a foreign language, call the MDCH Division of Immunization at 517-335-8159.

We are currently in the process of posting the foreign language VIS on the MDCH website. The foreign language VIS will be posted at www.michigan.gov/immunize.

### VIS documentation procedures

By noting the version date of the VIS on the patient's vaccine administration record, the provider is indicating that the parent and/or patient received the most current information about the vaccine. To document this, the provider must note in the patient's medical record the date the VIS was given and the version date of the VIS.

VIS Version D	Dates (as of 1/11/07)				
VIS	Current Version Date	New Version Dates			
HPV	Interim 9-5-06				
Нер В	7-11-01				
DTaP	7-30-01				
Td	6-10-94				
Tdap	Interim 7-12-06				
Hib	12-16-98				
IPV	1-1-00				
MMR	1-15-03				
VAR	Interim 1-10-07				
PCV	9-30-02				
PPV23	7-29-97				
Нер А	3-21-06				
TIV (Flu)	Updated annually				
LAIV (Flu)	Updated annually				
Meningococcal* (MCV4 & MPSV4)	Interim 11-16-06				
Rota (Rotavirus)	Interim 4-12-06				
Zoster (Shingles)	Interim 9-11-06				

### VIS are available in these foreign languages

Albanian	Croatian (Serbian)	llokano	Portuguese	Spanish
Arabic	Farsi	Italian	Punjabi	Tagalog
Armenian	French	Japanese	Romanian	Thai
Bosnian	German	Korean	Russian	Turkish
Burmese	Haitian Creole	Laotian	Samoan	Vietnamese
Cambodian	Hindi	Marshallese	Serbo-Croatian	
Chinese	Hmong	Polish	Somali	

24 Revised 1/11/07

### After receiving vaccines...



You have received one or more immunizations today: (circled)

Influenza – Injectable
Influenza – Nasal
Pneumococcal
Tetanus/Diphtheria
Tetanus/Diphtheria/Pertussis
Human Papillomavirus
Hepatitis A
Hepatitis B
Measles/Mumps/Rubella
Varicella (chickenpox)
Meningococcal
Zoster (shingles)

Sometimes the immunizations that protect you from serious diseases may also cause some discomfort. Reactions to vaccinations do occur, but serious reactions are rare. The more common reactions are redness, slight swelling and pain at the injection site and fever.

- If your arm becomes sore, you may want to apply ice or a cold pack to the injection area for 5–10 minutes at a time.
- Using or exercising the arm where the injection was given will distribute the medication quickly and decrease soreness.
- If you develop a fever greater than 100°F (38°C)
  - Please take a fever reducing medication as directed:
     for the next 24 hours.
  - o Drink plenty of fluids.
  - Dress lightly.

If you have other questions or are concerned about how you are feeling, CALL the clinic!

The	Clinic	<b>Phone</b>	Number	is			
You	r next	vaccin	e(s) are d	lue	on o	r after	•



## Injectable Vaccine Administration for Adults\*

Janet Olszewski, Director	<b>)</b>				
Vaccine	Age/Reminders	Route	Site	Needle Size	Contraindications†
Tetanus/Diphtheria (Td)	7 years & older	M	Deltoid	1" – 1.5"	Anaphylactic reaction to prior dose or component; For Tdap: encephalopathy
Td with pertussis (Tdap)	11-64 yrs (Adacel®) 10-18 yrs (Boostrix®)			22-25g	within 7 days of previous pertussis vaccine dose without other known cause
Hepatitis B (hep B)	3-dose series; no booster recommended	IM	Deltoid	1" – 1.5" 22-25g	Anaphylactic reaction to prior dose or component (baker's yeast)
Hepatitis A (hep A)	2-dose series; 2 <sup>nd</sup> dose 6 mo after 1st	IM	Deltoid	1" – 1.5" 22-25g	Anaphylactic reaction to prior dose or component; hypersensitivity to alum (Havrix® only: 2-phenoxyethanol)
Measles/Mumps/Rubella (MMR)	Born 1957 or later, assure 1 dose given; 2 doses for high risk	SC	Lateral Upper Arm	5/8" 23-25g	Anaphylactic reaction to prior dose or component (neomycin, gelatin); pregnancy
Varicella (Var)	Born 1980 or later, assure 2 doses or evidence of immunity	SC	Lateral Upper Arm	5/8" 23-25g	Anaphylactic reaction to prior dose or component (neomycin, gelatin); pregnancy
Inactivated Influenza (TIV)	Given yearly (thru March)	IM	Deltoid	1" – 1.5" 22-25g	Anaphylactic reaction to prior dose or component (eggs)
Pneumococcal	No more than 2 lifetime doses	SC	Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to prior dose or
Polysaccharide (PPV 23)	Space at least 5 years apart	IM	Deltoid	1"–1.5" 22-25g	component
Meningococcal Conjugate (MCV4)	Adolescents & persons at risk age 11-55; 1 dose	IM	Deltoid	1" – 1.5" 22-25g	Anaphylactic reaction to prior dose or component
Human papillomavirus (HPV4)	Females age 9-26; 3-dose series	IM	Deltoid	1" – 1.5" 22-25g	Anaphylactic reaction to prior dose or component; hypersensitivity baker's yeast
Herpes Zoster (zoster)	Adults 60 years and older	SC	Lateral Upper Arm	5/8" 23-25 g	Anaphylactic reaction to prior dose or component (neomycin, gelatin); pregnancy
* Routinely screen for and administ	ter these vaccines as needed. See A	dult Immuniz	ation Schedule tor add	itional information on	* Routinely screen for and administer these vaccines as needed. See Adult Immunization Schedule for additional information on risk groups, dosing and minimum intervals.

<sup>\*</sup> Routinely screen for and administer these vaccines as needed. See Adult Immunization Schedule for additional information on risk groups, dosing and minimum intervals. For travel and select-group vaccine information (IPV, yellow fever, rabies, etc.), refer to www.cdc.gov/nip

<sup>†</sup> Vaccines should never be administered in the buttocks. See package insert for complete contraindication/component listing; components may vary by brand of vaccine

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December 19, 2006

### **Vaccine Administration Record for Adults**

Patient Name:	
Date of Birth:	
MCIB ID #	

### Clinic Name/Address

Guide for Using This Form

Vaccine	Date Vaccine  & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client Status
Tetanus, diphtheria	01/12/89 *	Td							
Td with acellular pertussis	04/25/99*	Td			L				
Types are:	07/06/06*	Tdap			es vaccine				
Td			giv	en elsev	vhere				
Tdap									
Hepatitis B	10/2/02	НерВ-НерА	7/11/01	GSK	НАВ239А4	RA	IМ	Sally Smith RN	$\mathcal{P}$
Types are: HepB	11/12/02	НерВ-НерА	7/11/01	GSK	НАВ239А4	RA	IМ	Sally Smith RN	$\mathcal{P}$
НерВ-НерА	08/04/03	НерВ-НерА	7/11/01	ÇSK	НАВ239А4	RA	IМ	Jane Doe, MA	$\mathcal{P}$
Measles, Mumps, Rubella	10/2/02	MMR	06/13/02	MRX	M23456a	LA	SC	Sally Smith RN	$\mathcal{P}$
Type is: MMR	11/12/02	MMR	06/13/02	MRK	М23456а	LA	SC	Sally Smith RN	Р
Varicella	History	12/03/89							
Type is: Var	of disease								
Influenza	11/12/03	TIV	5/6/03	AVP	U088211	RA	IМ	Sally Smith RN	$\mathcal{P}$
Types are:									
TIV (Injectable)		Documer	nts varicella						
(See Back for Additional Spaces)	Aiv (Nasai)					Same shot 2 different			
Pneumococcal						_			
Type is: PPV23									
Hepatitis A	10/2/02	НерВ-НерА	8/25/98	GSK	НАВ239А4	RA	IМ	Sally Smith RN	$\mathcal{P}$
Types are: HepA	11/12/02	НерВ-НерА	8/25/98	GSK	НАВ239А4	RA	IМ	Sally Smith RN	$\mathcal{P}$
НерВ-НерА	08/04/03	НерВ-НерА	8/25/98	GSK	НАВ239А4	RA	IМ	Jane Doe MA	$\mathcal{P}$
Meningococcal									
Types are: MCV4 MPSV4									
Human Papillomavirus			How +	0.000	aloto the adm	inictration	n r000"	d for:	
Type: HPV4			11		olete the adm ccines (those			u 101.	
Zoster								e than one VIS),	
					that are given				
Type; Zoster			H - vac				ie, anu		
Type; Zoster Other			L Hie	tory of	chickennov 4	decaeir			
			- His	tory of	chickenpox	disease			

<sup>&</sup>lt;sup>1</sup> Place an asterisk (\*) next to the date the vaccine was given to indicate vaccines administered elsewhere <sup>2</sup> Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG, and Nasal

<sup>&</sup>lt;sup>3</sup> Route Code: IM=intramuscular, SC=subcutaneous, and intranasal
<sup>4</sup> Client VFC Status: M=Medicaid, U=Uninsured, D=Underinsured, A=American Indian or Alaskan Native, P=Private Insurance, See the most recent AIM Kit for updates

### **Vaccine Administration Record for Adults** Clinic Name/Address Patient Name: Date of Birth: MCIR ID #

Vaccine	Date Vaccine  & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client Status <sup>4</sup>
Tetanus, diphtheria Td with acellular pertussis Types are: Td Tdap									
Hepatitis B Types are: HepB HepB-HepA									
Measles, Mumps, Rubella Type is: MMR									
Varicella Type is: Var									
Influenza Types are: TIV (Injectable) LAIV (Nasal) (See Back for Additional Spaces)									
Pneumococcal Type is: PPV23									
Hepatitis A Types are: HepA HepB-HepA									
Meningococcal Types are: MCV4 MPSV4									
Human Papillomavirus Type: HPV4									
<b>Zoster</b> Type; Zoster									
Other Other Other Other									

<sup>&</sup>lt;sup>1</sup> Place an asterisk (\*) next to the date the vaccine was given to indicate vaccines administered elsewhere <sup>2</sup> Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG, and Nasal

<sup>3</sup> Route Code: IM=intramuscular, SC=subcutaneous, and intranasal

<sup>&</sup>lt;sup>4</sup> Client VFC Status: M=Medicaid, U=Uninsured, D=Underinsured, A=American Indian or Alaskan Native, P=Private Insurance,

Vaccine	Date Vaccine & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client Status <sup>4</sup>
Influenza									
Types are:									
TIV (Injectable)									
LAIV (Nasal)									
Notes:									

### Note:

Patients/parents should be informed about the risks and benefits associated with immunizations including those associated with the vaccine-preventable disease. Federal and state guidelines do not require a patient/parent signature to administer vaccines. However, health care providers have the option to obtain a signature. Check with your agency for specific requirements.

I have been given a copy and have read, or have had explained to me, the information contained on the appropriate Vaccine Information Statement (VIS) about the disease(s) and the vaccine(s) which are to be administered today. I have had a chance to ask questions that were answered to my satisfaction. I understand the benefits and risks of the specific vaccine(s) and I ask that the vaccine(s) I have requested be given to me, or to the person named, for whom I am authorized to make this request.

1. SIGNATURE	DATE	Insurance Status	6. SIGNATURE	DATE	Insurance Status
2. SIGNATURE	DATE	Insurance Status	7. SIGNATURE	DATE	Insurance Status
3. SIGNATURE	DATE	Insurance Status	8. SIGNATURE	DATE	Insurance Status
4. SIGNATURE	DATE	Insurance Status	9. SIGNATURE	DATE	Insurance Status
5. SIGNATURE	DATE	Insurance Status	10. SIGNATURE	DATE	Insurance Status



8 December 18, 2006

Injectable Vaccine Administration for Children Birth-6 years	7accine Age/Reminders Route Site   Age/Reminders Contraindications □	eria, Tetanus, 6 weeks-6 years IM  Or Deltoid*  Or Deltoid*  Anaphylactic reaction to prior dose or component; encephalopathy without other cause within 7 days of a pertussis- containing vaccine	No routine doses IM Anterolateral Thigh 1"-1.5" Anaphylactic reaction to prior dose or or Deltoid 22-25 g component	occal conjugate No routine doses IM Anterolateral Thigh 1"-1.5" Anaphylactic reaction to prior dose or or Deltoid 22-25 g component	tis B (Hep B) last dose at birth; IM Anterolateral Thigh or Deltoid or component (baker's yeast)	ivated Polio Give one dose at/after SC Lateral Upper Arm 5/8" Anaphylactic reaction to a prior dose	age 4 years for school entry IM Anterolateral Thigh 1"-1.5 or Deltoid 22-25 g	1st dose at/after 12 mo; 4 week interval between two doses	1st dose at/after 12 mo; 3 mo interval between two doses  SC Lateral Upper Arm 23-25 g Anterolateral Thigh <b>or</b> 23-25 g broomponent (neomycin or gelatin);	ated Influenza 6 months and older; brand to IM anterolateral Thigh or Deltoid 22-25 g Anaphylactic reaction to a prior dose or component (eggs)	tis A (Hep A)  1st dose at/after 12 mo  IM  Anterolateral Thigh  22-25 g  Anaphylactic reaction to prior dose or component; hypersensitivity to alum (Havrix®: 2-phenoxyethanol)
Michigan Department of Community Health W 1061 Jennifer M. Granholm, Governor Junet Olszewski, Director	Vaccine	Diphtheria, Tetanus, Pertussis (DTaP)	Haemophilus influenza type B (Hib)	Pneumococcal conjugate (PCV7)	Hepatitis B (Hep B)	Inactivated Polio	Vaccine (IPV)	Measles, Mumps, Rubella (MMR)	Varicella (Var)	Inactivated Influenza (TIV)	Hepatitis A (Hep A)

a Vaccines should never be administered in the buttocks. 

See package insert for complete contraindication/component listing; may vary by brand

\* Professional judgment is appropriate when selecting needle length for use in all children, especially small infants or larger children. ± Use of the deltoid muscle in children 18 months and older (if adequate muscle mass is present) is an option for IM injections.

January 12, 2007

# W 16H Interception Programment Administration for Children 7-18 Years

-10 I cals	Contraindications	Anaphylactic reaction to prior dose or component	Anaphylactic reaction to prior dose or component; encephalopathy within 7 days of previous pertussis vaccine without other known cause	Anaphylactic reaction to a prior dose or component (baker's yeast)	Anaphylactic reaction to a prior dose	streptomycin, or polymyxin B)	Anaphylactic reaction to a prior dose or component (neomycin, gelatin); pregnancy	Anaphylactic reaction to a prior dose or component (neomycin, gelatin); pregnancy	Anaphylactic reaction to a prior dose or component (eggs)	Anaphylactic reaction to a prior dose or component	Anaphylactic reaction to prior dose or component; hypersensitivity to baker's yeast
	Needle*	1"-1.5" 22-25 g	1"-1.5" 22-25 g	1"-1.5" 22-25 g	5/8" 23-25 g	1"-1.5" 22-25 g	5/8" 23-25 g	5/8" 23-25 g	1"-1.5" 22-25 g	1"-1.5" 22-25 g	1"-1.5" 22-25 g
adon ioi Cin	Site*	Deltoid	Deltoid	Deltoid	Lateral Upper Arm	Deltoid	Lateral Upper Arm	Lateral Upper Arm	Deltoid	Deltoid	Deltoid
	Route	IM	IM	IM	SC	IM	SC	SC	IM	IM	IM
January Discounty, Diversor High Control of Action Control of Cont	Age/Reminders	7 years and older	Routinely given at age 11-12 years; one dose	1st dose at birth; last dose at/after 6 mo	Give one dose at/after	age 4 years for school entry	1st dose at/after12 mo	1st dose at/after 12 mo 12mo-12 yr: 3 months between dose 1 & 2	6 months and older	11-55 years	Females 9-26 years
Janet Olszewski, Director	Vaccine	Tetanus, diphtheria (Td)	Tetanus, diphtheria, pertussis (Tdap)	Hepatitis B (hep B)	Inactivated Polio	Vaccine (IPV)	Measles, Mumps, Rubella (MMR)	Varicella (Var)	Inactivated Influenza (TIV)	Meningococcal Conjugate (MCV4)	Human Papilloma- virus (HPV4)

<sup>\*</sup> Professional judgment is appropriate when selecting needle length and administration site; do not administer vaccines in buttocks

 <sup>□</sup> See package insert for complete contraindication listing; components may vary by brand of vaccine used
 ■ Two Tdap vaccines available: Boostrix® (GSK) is licensed for persons 10-18 yrs; ADACEL™ (sanofi pasteur) licensed for persons 11-64 yrs.
 See most recent AIM Kit for updates

### Vaccine Administration Record for Children and Teens

 Patient Name:
 Any Child

 Date of Birth:
 11/30/2002

Clinic Name/Address

Guide for using this form...

MCIR ID#

Vaccine	Date Vaccine 4 Vaccine Waccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client VFC Status <sup>4</sup>
Diphtheria,	02/05/03	DTap-HepB-IPV	7/30/01	GSK	635A	RT	IМ	Sally Woods MA	М
Tetanus, Pertussis	04/05/03	DTap-НерВ-IPV	7/30/01	SSK	712A2	RT	IМ	Sally Woods MA	М
Types are: DTaP DT	06/05/03	DTap-НерВ-IPV	7/30/01	GSR	712A2	RT	IМ	Sally Woods MA	М
DTaP-Hib DTaP-HepB-IPV Tdap Td	[*]	Indicates v elsewhere.	accine g	iven	Same sh Stateme			Vaccine Information dates	ion P
Haemophilus influenzae type b	02/05/03	Нів	12/16/98	AVP	UA7443A	LT	IM	Sally Woods MA	М
Types are:	04/05/03	Hi6	12/16/98	AVP	V2/44AA	LT	IM	Sally Woods MA	M
Hib Hib-HepB DTaP-Hib	06/05/03	Hib .	12/16/98	AVP	UA744AA	$\frac{\mathcal{L}T}{\mathcal{L}T}$	IM	Sally Woods MA	M
Hepatitis B	<u> </u>		12/10/50	J. r. p	- Optivipie	+	<b>†</b>		JIL
Types are:	12/02/02*	Нер В	7/11/01	O COOK	(25.42	Given	at	Anywhere Hospital	21
HepB Hib-HepB	02/05/03	DTap-HepB-IPV	7/11/01	GSK	635,82	RT	IM TOA	Sally Woods MA	M
DTaP-HepB-IPV	04/05/03	DTap-HepB-IPV DTap-HepB-IPV	7/11/01	GSK	712A2	RT	IM IM	Sally Woods MA	M
	06/03/03	Ф1ар-лерь-14V	7/11/01	GSK /	712A2	RT	$I\mathcal{M}$	Sally Woods MA	М
<b>Hepatitis A</b> Type is: HepA									
Polio	02/05/03	DTap-HepB-IPV	1/01/00	GSK	635A2	RT	IМ	Sally Woods MA	м
Types are:	04/05/03	DTap-HepB-IPV	1/01/00	GSK	712A2	RT	IМ	Sally Woods MA	М
IPV DTaP-HepB-IPV	06/05/03	DTap-HepB-IPV	1/01/00	GSK.	712A2	RT	IМ	Sally Woods MA	М
Measles, Mumps, Rubella Types are : MMR MMRV	12/20/03	MMR	1/15/03	MRK	0857УЛ	L.A	SC	Linda Miller MA	М
<u>V</u> aricella	Disease date							N. Carlotte	
Types are: Var MMRV	11/15/03		Росит	nents d	isease history				
	02/05/03	PCV 7	7,,,,,,,		1.402-017	RT	IМ	Sally Woods MA	М
Pneumococcal conjugate	04/05/03	PCV 7	9/30/02	WYE	489-835	RT	IM	Sally Woods MA	M
Type is: PCV7	06/05/03	PCV 7	9/30/02	WYE	489-835	$\mathcal{R}\mathcal{T}$	IМ	Sally Woods MA	М
Type is. FCV7	03/05/04	PCV 7	9/30/02	WYE	501-245	LT	IМ	Sally Woods MA	М
Rotavirus Type is: Rota									
Influenza Types are: TIV (Injectable) LAIV (Intranasal) (More space on the reverse side.)					How to complete  — Single Vacci		   ministra	       tion record for:	
Meningococcal Types are: MCV4 MPSV4					<ul> <li>Combination</li> <li>Vaccines tha</li> <li>History of C</li> </ul>	t are giv	en else		
Human Papillomavirus Type is: HPV4						HERBIELDER GENERAL			

Place an asterisk (\*) next to the date the vaccine was given to indicate vaccines administered elsewhere.
 Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG
 Route Code: IM= intramuscular, SC=subcutaneous, IN=intranasal, PO=oral
 Client Status: M=Medicaid, U=Uninsured, D=Underinsured, P=Private Insurance, A=American Indian or Alaskan Native, V=MIVRP, L=Other Public Purchase

Vaccine Administration Record for Children and Teer Patient Name:	S	Clinic Name/Address	
Date of Birth:			
MCIR ID#			

WOII LID#									
Vaccine	Date Vaccine & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client VFC Status
Diphtheria, Tetanus, Pertussis									
Types are: DTaP									
DT DTaP-Hib DTaP-HenB-IPV									
Types are: DTaP DTaP-Hib DTaP-HepB-IPV Tdap Td									
Haemophilus influenzae type b									
type b Types are:									
Hib									
Hib-HepB DTaP-Hib									
Hepatitis B									
Types are: HepB									
Hib-HepB DTaP-HepB-IPV									
Hepatitis A									
Type is: HepA									
Polio									
Types are: IPV									
DTaP-HepB-IPV									
Measles Mumps									
Measles, Mumps, Rubella Types are : MMR MMRV									
<b>Varicella</b> Types are: Var MMRV									
Pneumococcal conjugate									
Type is: PCV7									
Rotavirus									
Type is: Rota									
1.0									
Influenza Types are:									
TIV (Injectable) LAIV (Intranasal)									
(More space on the reverse side.)									
Meningococcal Types are:									
Types are: MCV4 MPSV4									
Human Papillomavirus									
Type is: HPV4									

Place an asterisk (\*) next to the date the vaccine was given to indicate vaccines administered elsewhere.

Place an asterisk (\*) next to the date the vaccine was given to indicate vaccines administered elsewhere.

Route Code: IM= Intramuscular, SC=Subcutaneous, IN= Intranasal, PO=Oral Route Code: IM= Intramuscular, IN= Intramasal, PO=Oral Route Code: IM= Intramasal, PO=Oral Route Code: I

Vaccina	Administration	Doord for	Children	and I	-
vaccine	Administration	Record for	Chilaren	and i	eens

Side 2

Patient Name:	Date of Birth:	MCIR ID#

Vaccine	Date Vaccine & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given <sup>2</sup>	Route <sup>3</sup>	Signature of Vaccine Administrator	Client VFC Status
Influenza Types are:									
TIV									
LAIV									
Other									
Other									
Other									
Other									

### Note:

Patients/parents should be informed about the risks and benefits associated with immunizations including those associated with the vaccine-preventable disease. Federal and state guidelines do not require a parent/patient signature to administer vaccines. However, health care providers have the option to obtain a signature. Check with your agency for specific requirements.

I have been given a copy and have read, or have had explained to me, the information contained on the appropriate Vaccine Information Statement (VIS) about the disease(s) and the vaccine(s) which are to be administered today. I have had a chance to ask questions that were answered to my satisfaction. I understand the benefits and risks of the specific vaccine(s) and I ask that the vaccine(s) I have requested be given to me, or to the person named, for whom I am authorized to make this request.

1. SIGNATURE	DATE	Insurance Status	8. SIGNATURE	DATE	Insurance Status
2. SIGNATURE	DATE	Insurance Status	9. SIGNATURE	DATE	Insurance Status
3. SIGNATURE	DATE	Insurance Status	10. SIGNATURE	DATE	Insurance Status
4. SIGNATURE	DATE	Insurance Status	11. SIGNATURE	DATE	Insurance Status
5. SIGNATURE	DATE	Insurance Status	12. SIGNATURE	DATE	Insurance Status
6. SIGNATURE	DATE	Insurance Status	13. SIGNATURE	DATE	Insurance Status
7. SIGNATURE	DATE	Insurance Status	14. SIGNATURE	DATE	Insurance Status



### **Vaccine Storage Basics**

### 1. Keep the refrigerator/freezer plugged in and cold

- 1. Refrigerators should have separate, sealed refrigerator & freezer compartments
- 2. Have separate temperature controls for refrigerator & freezer compartments
- a. Put certified thermometers in the refrigerator and in the freezer
- b. Check and record the temperature in the refrigerator & freezer twice daily
- c. Use a safety plug or plug cover to prevent accidental disconnection
- d. Place "DO NOT UNPLUG" warnings near the outlet and circuit breaker
- e. Keep water bottles in refrigerator and ice packs in freezer

### 2. Keep these vaccines in the refrigerator (35° – 46° F or 2° – 8° C)

DTaP, Tdap, Td, DT	HPV4	PCV7
Hib	MMR*	PPV23
IPV	MCV4	TIV
Hep A	MPSV4	
Нер В	Rota	

a. Put them in the refrigerator as soon as they arrive

### 3. Keep these vaccines frozen (5°F or -15°C or lower)

Varicella LAIV MMR\* Zoster

**MMRV** 

a. Put them in the freezer as soon as they arrive

### 4. Keep vaccines protected from light

a. Remove individual dose vials from cardboard package only as needed

### 5. Do not allow vaccine to expire

- a. Check expiration dates monthly
- b. Place vaccines so those that will expire first are used first
- c. Stock only what you can use in 1–2 months
- d. For VFC vaccine: call your local health department VFC contact person if any of your VFC vaccine will expire in less than 6 months

### 6. Transport vaccines correctly

- a. Refrigerated vaccines must be transported in an insulated cooler with a barrier separating the vaccines from the ice/cold packs
- b. Place a thermometer in the cooler to monitor the temperature
- c. Frozen vaccines can only be transported in an insulated cooler with dry ice
- d. Place vaccines appropriately in the refrigerator or freezer immediately upon arrival at the clinic

<sup>\*</sup>MMR vaccine can be stored in the refrigerator or the freezer



### Information for People with Chronic Hepatitis B Infection How to Take Care of Yourself and Others

People with chronic hepatitis B virus (HBV) infection (having HBV for more than six months) are known as carriers. Carriers who get HBV at a young age have an increased risk of liver disease as adults. Most HBV carriers do not feel or look sick, but still need to see their doctors at least once a year for follow-up care.

Carriers may feel healthy, but they can still give HBV to others. Carriers must protect others from their blood, or other body fluids such as semen and vaginal fluids. HBV is not spread by sneezing, coughing, or by casual contact such as holding hands or hugging.

### What you can do to take care of yourself

- See a doctor for a check-up at least once a year
- Review all medications (prescription, over-the-counter, and alternative) with your doctor
- Discuss with your doctor about getting periodic ultrasounds, alpha-fetoprotein (AFP) blood tests, or other studies to make sure there is no evidence of a developing liver cancer
- Don't drink alcohol because it can further damage your liver, especially when used with acetaminophen (an ingredient found in cold and headache remedies)
- Don't eat raw oysters
- Get the hepatitis A vaccinations and all other appropriate immunizations

### What you can do to protect others

- If you are pregnant, tell your doctor that you have HBV so your baby can get the hepatitis B (hepB) vaccine and hepatitis B immune globulin (HBIG) at birth
- Cover all cuts and open sores
- Properly dispose of all items such as tissues, menstrual pads and tampons, so others don't come into contact with any blood or body fluids
- Wash hands well after touching your blood or body fluids
- Clean up blood spills with one part bleach to ten parts water
- Make sure all household and sexual partners are tested and treated
- Tell your sexual partner(s) that you have HBV and continue to use a latex condom until they test positive for the hepatitis B surface antibody (anti-HBs)
- Let your doctor and dentist know that you have HBV
- Do **NOT** share food or gum that has been in your mouth
- Do **NOT** share toothbrushes, razors, tattooing and body piercing equipment, earrings, nail files, clippers, or anything that may have come into contact with your blood or body fluids
- Do NOT share syringes or needles
- Do **NOT** donate blood, plasma, body organs, tissue, sperm or eggs

(Modified from Immunization Action Coalition's If You Have Chronic Hepatitis B Virus (HBV) Infection #P4120-08/05)

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### **Advice for Parents**

Parents face many issues while raising their children, but having a child with the hepatitis B virus (HBV) presents new challenges.

### Avoid the spread of HBV

- All parents, siblings and other household members need hepatitis B (hepB) vaccine.
- Extended family members, childcare providers, family, friends and others that have frequent and close contact with an infected child should consider hepB vaccination.

### **Know the facts**

- Give clear and simple facts about hepatitis B:
  - It is spread through blood and infected body fluids.
  - It can be spread through bites or open wounds.
  - It cannot be spread by sharing toys, sneezing, coughing, spitting, or hugging.
  - There is a safe and effective vaccine to protect you.

### **Telling others**

- Consider if your child is at high or low risk for exposing others to his or her blood or body fluids (e.g., consider age, frequency of accidents, nosebleeds, biting, frequent or occasional contact).
- More and more children are now getting vaccinated against HBV, so the risk of your child infecting others is reduced.
- Use common sense in deciding whom to tell about your child's HBV. Once you tell someone, you cannot take it back!

### **Practice Universal Precautions**

- Blood and body fluids should be treated as if they are potentially infectious.
- Clean all spills with a diluted solution of bleach (one part bleach and ten parts water).
- Properly dispose of items used to clean spills.
- Properly dispose of items such as tissues, menstrual pads and tampons, band-aids, and wound dressings so others don't come into contact with any blood or body fluids.
- Wash your hands thoroughly with soap and warm water.

(Modified from the Hepatitis B Foundation's Advice for Parents)

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### Countries with Moderate or High Rates of Hepatitis B

(Greater than 2% of the population is HBsAg positive for Hep B)

Afghanistan French Polynesia Sevchelles Malawi Albania Gabon Malaysia Sierra Leone Algeria Gambia, The Maldives Singapore American Samoa Georgia Mali Slovakia Ghana Solomon Islands Angola Malta Antigua & Barbuda Greece Marshall Islands Somalia Armenia Grenada Martinique South Africa Guadeloupe Mauritania Spain Azerbajan St. Kitts and Nevis Bahrain Guam Mauritius Bangladesh Guatemala Micronesia, FSM St. Lucia Benin Guinea Sudan Moldova Bhutan Guinea-Bissau Mongolia Suriname Morocco Botswana Guyana Swaziland Haiti Syrian Arab Republic Brazil Mozambique Brunei Honduras Myanmar Taiwan Namibia Tajikistan Bulgaria Hong Kong Burkina Faso Nepal Tanzania, United Rep. India Burundi Indonesia **Netherlands Antilles** Thailand New Caledonia Togo **Byelorus** Iran Cambodia (Kampuchea) Iraq Niger Tonga Cameroon Israel Nigeria Tunisia Cape Verde Northern Marinia Turkey Italy Cayman Islands Oman Turkmenistan Jamaica Central African Republic Pakistan Uganda Japan Chad Ukraine Jordan Palau Papau New Guinea United Arab Emirates China Kazakhstan Paraguay Comoros Kenya UNRWA Congo, Peoples Republic Kirgyzstan Peru Uzbekistan Cook Islands Kiribati **Philippines** Vanuatu Cote d'Ivoire Korea, Peoples (DPR) Poland Venezuela Czechloslavakia Korea, Republic of Portugal Vietnam Virgin Islands, U.S. Diibouti Kuwait Puerto Rico **Dominica** Laos Qatar Wallis and Futuna Dominican Republic Yemen Latvia Reunion Ecuador Lebanon Romania Yemen Dem Egypt, Arab Republic of Russia Yugoslavia Lesotho **Equatorial Guinea** Zaire Liberia Rwanda Estonia Libya Samoa, Western Zambia

Lithuania

Madagascar

Macau

Ethiopia

French Guiana

Fiji

Sao Tome & Principe

Saudi Arabia

Senegal

Zimbabwe

### Free immunization brochures and materials order form

### Order these materials online at <a href="http://www.hpclearinghouse.org">http://www.hpclearinghouse.org</a>

If you prefer, you may fax this order form to (517) 699-2376. For information about orders that have already been placed, call the Michigan Department of Community Health (MDCH) Clearinghouse toll-free at (888) 76-SHOTS. Any other questions should be directed to the MDCH Division of Immunization (517) 335-8159.

**Please enter quantity for each requested item.** (Orders for brochures are usually limited to 500, unless otherwise stated. Limits on orders may be temporarily decreased if inventory is low.)

Quantity needed	Item requested
(Limit 1)	2007 Alliance for Immunization in Michigan (AIM) Provider Tool Kit – (Updated annually) This packet is designed for health care professionals who administer vaccines to their patients. Immunization schedules for children, adolescents and adults are included, along with information about contraindications, administration, documentation, and storage and handling of vaccines.
(Limit 1,000)	Adult Immunization Record Card
(Limit 50)	Influenza Vaccination Pocket Guide – (the pocket guides are for health care providers ONLY)
(Limit 50)	Pneumococcal Polysaccharide (PPV23) Vaccination Pocket Guide – (for health care providers)
Quantity needed	Brochures
	Protect Babies and Toddlers from Serious Diseases – UPDATED in 2006
	(formerly called the Immunize Your Little Michigander brochure)
	Keep Your Family Safe from the Flu – UPDATED for 2006-2007 flu season
	If you have Diabetes, Getting a Flu Shot is a Family Affair
	Shots for your Child (about the Vaccines for Children program)
	Are you 11-19 years old? Then you need to be protected – UPDATED  (Please note: An updated brochure will be available in early 2007.)

Quantity needed	Brochures								
	Vaccine Safety – What parents need to know								
	(Please note: An updated brochure will be available in 2007.)								
	Adult Immunizations – Are you protected?								
	Hepatitis B: What Parents Need to Know (With special information for pregnant women)								
	(Please note: An updated brochure will be available in 2007.)								
	The Dangers of Hepatitis B: What they are, How to avoid them								
	Hepatitis, What you need to know (ABCs)								
	Antibiotics: What You Should Know								
	To order:  aterials may be ordered online at <a href="http://www.hpclearinghouse.org">http://www.hpclearinghouse.org</a> is form may also be faxed to the MDCH Clearinghouse at (517) 699-2376								
Name:									
Type of Clinic/practice:	□ Pediatric □ Family Practice □ Adult/Internal Med □ OB/GYN □ Specialty								
Email address*	:								
Street address*	:								
City:	State: MI** Zip code:								
Phone no.:	(include area code)								
*Complete email ac	ddress to receive immunization information updates.								
** Reminder: We c	annot ship to P.O. boxes. ** Materials are available to Michigan residents only.								
	n or for special requests, contact the Michigan Department of Community Health, ration (517) 335-8159.								



### **Immunization Materials**

Order Date:		

To order, complete the shipping information below, then indicate the quantity of each item you desire. Where possible, the latest revision date for an item is given. **NOTE:** Private providers, mail your order to your local county health department. Local county health departments, mail/fax your order to the Division of Immunization, Michigan Department of Community Health, 201 Townsend Street, PO Box 30195, Lansing, MI 48909; fax number: 517-335-9855. **Orders cannot be shipped to a PO Box.** 

Organization	Contact Person
Street Address	Phone Number (include area code)
City	Zip Code

FORMS	FORMS							
Quantity		Quantity						
	Health Appraisal Form (6-2001) OCAL-3305		Official Certificate of Immunization - Wallet Size (3-2005) DCH-0592					
	Immunization Materials Order Form (5-2005) DCH-0487		Perpetual Inventory Record Card (8" x 5") (2-2002) DCH-1117					
	Immunization Signature Record Card (7-2005) DCH-0606		Perpetual Inventory Record Sheet (5-91) DCH-0607					
	Mich. School Bldg. Weekly Report for Communicable Disease (3-2005) DCH-0453		Vaccine Administration Record (9-94) IP-95					
	MOMS Reminder Card (General) (1-96) IP-12		Vaccine Adverse Event Reporting System VAERS-1					
	MOMS Reminder Card (Tots) (1-96) IP-12A							

PERINATAL HEPATITIS B MATERIALS (Call 517-335-8122 to order hepatitis B forms)							
Quantity		Quantity					
	Alert Stickers IP-83		Perinatal Case Report (Contact & Infant) (8/05) DCH-0973				
	Important Cards		"Mothers — Don't share hepatitis B" Cards				

### VACCINE INFORMATION STATEMENTS (VIS) ON NEXT PAGE

### **VACCINE INFORMATION STATEMENTS (VISS)**

All Vaccine Information Statements are available in the languages shown unless otherwise noted. Please indicate the number of VIS sheets you require in each language desired. All English VISs are available ONLY in packages of 250. All translations may have the same version date as the English version. The following VISs are available in the indicated languages.

same version date as the English version. The following VISs are available in the indicated languages.				
	English (E), Albanian (AL), Arabic (AR), Armenian (A), Bosnian (B), Burmese (BU)			
	Cambodian (CA), Chinese (C), Croation (Serbian) (CR), Farsi (FA), French (F), German (G),			
LANGUAGE	Haitian Creole (HC), Hindi (HI), Hmong (H), Ilokano (IL), Italian (I), Japanese (J), Korean			
KEY 🎏	(K), Laotian (L), Marshallese (M), Polish (PO), Portuguese (P), Punjabi (PU), Romanian (RO),			
	Russian (RU), Samoan (SA), Serbo-Croatian (SC), Somali (SO), Spanish (S), Tagalog (T), Thai			
	(TH), Turkish (TU), Vietnamese (V)			
Chickenpox	Available in: All except M			
DTaP	Available in: All except M			
Hib	Available in: All except M			
Hepatitis A	Available in: All except BU, M			
Hepatitis B	Available in: All except M			
Influenza	Available in: All except AR, BU, G, M, RO, SA			
Japanese Encephalitis	Available in E			
MMR	Available in: All languages			
Meningococcal	Available in: E, HC, PO, RU, SO, S, TH, TU			
Pneumococcal Conjugate	Available in: All except BU, M			
Pneumococcal Polysaccharide	Available in: E, CA, C, HC, H, L, RU, SO, S, TH, TU, V			
Polio	Available in: All except BU, M			
Rabies	Available in: E, S			
Rotavirus	Available in: E, S, TH			
Smallpox	Available in: E, CA, H, L, RU, SC, SO, S, V			
Td	Available in: All except BU, M			
Tdap	Available in: E, S			
Typhoid	Available in: E, S			
Yellow Fever	Available in: E, S			

**To order VIS in the desired language**, please indicate how many of each language you need. Example: For Chickenpox -250 E, 100 S, 25 J = Equals: 250 E English, 100 S panish & 25 J Japanese. **Please PRINT clearly.** 

Cinckenpox – 250 E, 100 S, 25 J – Equa.	is. 250 English, 100 Spanish & 25 Japanese. Flease FKHVI clearly.
Chickenpox	
DTaP	
Hib	
Hepatitis A	
Hepatitis B	
Human Papillomavirus (E, S, TH Only)	
Influenza	
MMR	
Meningococcal	
Pneumococcal Conjugate	
Pneumococcal Polysaccharide	
Polio	
Rabies	
Rotavirus	
Smallpox	
Shingles (English Only)	
Td	
Tdap	
Typhoid	
Yellow Fever	



### Web Sites for Hepatitis Resources

GENERAL INFORMATION	
American Academy of Pediatrics	<u>www.aap.org</u>
Centers for Disease Control & Prevention (CDC)	<u>www.cdc.gov</u>
CDC Morbidity and Mortality Weekly Report (MMWR)	
Immunization Action Coalition (IAC)	<u>www.immunize.org</u>
IAC (vaccine information)	www.vaccineinformation.org
Immunization Gateway	www.immunofacts.com
Michigan Occupational Safety and Health Administration (MIOSHA)	www.michigan.gov/miosha
MIOSHA Standards for Bloodborne Pathogens www.michigan.gov/documents/CI	
Parents of Kids w/Infectious Diseases (PKIDS)	
Partnership for Prescription Assistance	www.pparxmi.org
Patient Advocate Foundation	www.patientadvocate.org
Vaccine Safety	-
World Health Organization (WHO)	
HEPATITIS INFORMATION	
American Gastroenterological Association	www.gastro.org
American Liver Foundation	
Asian Liver Center	
CDC Hepatitis Information	<del>-</del>
Clinical Trial Information	
Hepatitis and Intravenous Drug Use	
Hepatitis B Foundation (Liver Specialists)	
Hepatitis B Info Page	<del>_</del>
Hepatitis B Recommendations: "A Comprehensive Immunization Strategy to Elim	
B Virus Infection in the United States"www.cdc.gov/mmwr/pre	
Hepatitis B support information	
Hepatitis C Info Page	The state of the s
Hepatitis C Connection	
Hepatitis Foundation International	
Hepatitis Support Project	
HIV and Hepatitis Site	
Janis and Friends Hepatitis C Support	
Massachusetts Hepatitis Patient Empowerment Project	
Michigan Hepatitis C Foundation	www.mid-neppep.org
North American Society for Pediatric Gastroenterology, Heptology, and Nutrition	
Perinatal Hepatitis B Program Manual	
PHARMACEUTICAL COMPANIES	. www.micingan.gov/nepatitisb
	www.omgon.com
Amgen Bristol-Myers Squibb Company	
Gilead	
GlaxoSmithKline	
MedImmune	
Merck and Co., Inc	
North American Biologics, Inc	
Novartis	
Roche Pharmaceuticals	
sanofi pasteur	
Schering-Plough	
Wyeth-Lederle Vaccines and Pediatrics	<u>www.ahp.com</u>

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### Recommended Immunization Schedule for Ages 0-6 Years UNITED STATES • 2007

Birth HepB	1 month	2 months	4 months	6 months	12 months	15	18	19–23	2–3	4–6	
НерВ	He				1110111113	months	months	months	years	years	
	- 110	рВ	see footnote 1		He	pB		Н	epB Seri	es	Range of recommended
		Rota	Rota	Rota							ages  Catch-up
		DTaP	DTaP	DTaP		DI	aP			DTaP	immunization
		Hib	Hib	Hib⁴	Hi	ib		Hib			Certain high-risk grou
		PCV	PCV	PCV	PC	CV					
		IPV	IPV		IP	PV	I			IPV	
						Influe	nza (Yea	rly)			
					MIN	VIR				MMR	
					Vario	cella				Varicella	
						HepA (	2 doses)		НерА	Series	
									MPS	SV4	
			DTaP Hib PCV	DTaP DTaP Hib Hib PCV PCV	DTaP DTaP DTaP Hib Hib Hib' PCV PCV PCV	DTaP DTaP  Hib Hib Hib¹ H  PCV PCV PCV PCV  IPV IPV IF	DTAP DTAP DTAP DT  Hib Hib Hib' Hib  PCV PCV PCV PCV  IPV IPV IPV  Influe  MMR  Varicella	DTaP DTaP DTaP  Hib Hib Hib Hib Hib  PCV PCV PCV PCV  IPV IPV  Influenza (Yeal	DTaP DTaP DTaP  Hib Hib Hib Hib Hib Hib  PCV PCV PCV  IPV IPV  Influenza (Yearly)  MMR	DTaP DTaP DTaP  Hib Hib Hib' Hib Hib  PCV PCV PCV PCV PIPV  IPV IPV  Influenza (Yearly)  MMR  Varicella  HepA (2 doses) HepA	DTAP DTAP DTAP DTAP DTAP  Hib Hib Hib Hib Hib  PCV PCV PCV PCV PPV  IPV IPV IPV IPV  Influenza (Yearly)  MMR  Waricella  Varicella

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children through age 6 years. For additional information see <a href="https://www.cdc.gov/nip/recs/child-schedule.htm">www.cdc.gov/nip/recs/child-schedule.htm</a>. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components

of the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at <a href="https://www.vaers.hhs.gov">www.vaers.hhs.gov</a> or by telephone, 800-822-7967.

### 1. Hepatitis B vaccine (HepB). (Minimum age: birth)

### At birth:

- Administer monovalent HepB to all newborns prior to hospital discharge.
- If mother is HBsAg-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth.
   Determine the HBsAg status as soon as possible and if HBsAg-positive, administer HBIG (no later than age 1 week).
- If mother is HBsAg-negative, the birth dose can only be delayed with physician's order and mothers' negative HBsAg laboratory report documented in the infant's medical record.

### Following the birth dose:

• The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1–2 months. The final dose should be administered at age ≥24 weeks. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of 3 or more doses in a licensed HepB series, at age 9–18 months (generally at the next well-child visit).

### 4-month dose of HepB:

 It is permissible to administer 4 doses of HepB when combination vaccines are given after the birth dose. If monovalent HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

### 2. Rotavirus vaccine (Rota). (Minimum age: 6 weeks)

- Administer the first dose between 6 and 12 weeks of age. Do not start the series later than age 12 weeks.
- Administer the final dose in the series by 32 weeks of age. Do not administer a
  dose later than age 32 weeks.
- There are insufficient data on safety and efficacy outside of these age ranges.

### 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)

- The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose.
- · Administer the final dose in the series at age 4-6 years.

### 4. Haemophilus influenzae type b conjugate vaccine (Hib). (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required.
- TriHiBit® (DTaP/Hib) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in ≥12 months olds.

- 5. Pneumococcal vaccine. (Minimum age: 6 weeks for Pneumococcal Conjugate Vaccine (PCV); 2 years for Pneumococcal Polysaccharide Vaccine (PPV))
  - Administer PCV at ages 24-59 months in certain high-risk groups. Administer PPV to certain high-risk groups aged ≥2 years. See MMWR 2000; 49(RR-9):1-35.
- 6. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV)
  - All children aged 6–59 months and close contacts of all children aged 0–59 months are recommended to receive influenza vaccine.
  - Influenza vaccine is recommended annually for children aged ≥59 months with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See MMWR 2006: 55(RR-10):1-41.
  - For healthy persons aged 5-49 years, LAIV may be used as an alternative to TIV.
  - Children receiving TIV should receive 0.25 mL if aged 6–35 months or 0.5 mL if aged ≥3 years.
  - Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).

### 7. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)

Administer the second dose of MMR at age 4–6 years. MMR may be administered prior to age 4–6 years, provided ≥4 weeks have elapsed since the first dose and both doses are administered at age ≥12 months.

### 8. Varicella vaccine. (Minimum age: 12 months)

Administer the second dose of varicella vaccine at age 4–6 years. Varicella vaccine may be administered prior to age 4–6 years, provided that ≥3 months have elapsed since the first dose and both doses are administered at age ≥12 months. If second dose was administered ≥28 days following the first dose, the second dose does not need to be repeated.

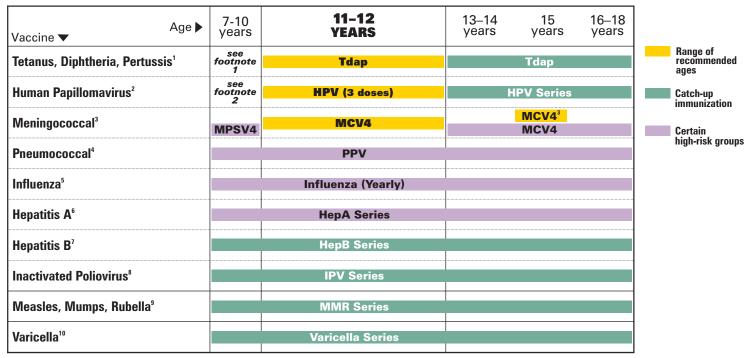
### 9. Hepatitis A vaccine (HepA). (Minimum age: 12 months)

- HepA is recommended for all children at 1 year of age (i.e., 12–23 months).
   The 2 doses in the series should be administered at least 6 months apart.
- · Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See MMWR 2006; 55(RR-7):1-23.

### 10. Meningococcal polysaccharide vaccine (MPSV4). (Minimum age: 2 years)

 Administer MPSV4 to children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See MMWR 2005;54 (RR-7):1-21.

### Recommended Immunization Schedule for Ages 7–18 Years UNITED STATES • 2007



This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2006, for children aged 7–18 years. For additional information see <a href="www.cdc.gov/nip/recs/child-schedule.htm">www.cdc.gov/nip/recs/child-schedule.htm</a>. Any dose not administered at the recommended earlier age should be administered at any subsequent visit when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of

the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at <a href="https://www.vaers.hhs.gov">www.vaers.hhs.gov</a> or by telephone, 800-822-7967.

### **FOOTNOTES**

### 1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

(Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL™)

- Administer at age 11–12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a Td booster dose.
- Adolescents 13–18 years who missed the 11–12 year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTP/DTaP vaccination series.

### 2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)

- Administer the first dose of the HPV vaccine series to females at age 11–12 years.
- Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose.
- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.
- 3. Meningococcal vaccine. (Minimum age: 11 years for meningococcal conjugate vaccine (MCV4); 2 years for meningococcal polysaccharide vaccine (MPSV4))
  - Administer MCV4 at age 11–12-years and to previously unvaccinated adolescents at high school entry ( $\sim$ 15 years of age).
  - Administer MCV4 to previously unvaccinated college freshmen living in dormitories; MPSV4 is an acceptable alternative.
  - Vaccination against invasive meningococcal disease is recommended for children and adolescents aged ≥2 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups. See MMWR 2005;54 (RR-7):1-21. Use MPSV4 for children aged 2–10 years and MCV4 or MPSV4 for older children.

### 4. Pneumococcal polysaccharide vaccine (PPV). (Minimum age: 2 years)

- Administer for certain high-risk groups. See MMWR 1997; 46(RR-08);
   1–24 and MMWR 2000; 49(RR-9):1-35.
- Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 5 years for live, attenuated influenza vaccine (LAIV)

- Influenza vaccine is recommended annually for persons with certain risk factors, healthcare workers, and other persons (including household members) in close contact with persons in groups at high risk. See MMWR 2006; 55(RR-10);1-41.
- For healthy persons aged 5–49 years, LAIV may be used as an alternative to TIV.
- Children aged <9 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by ≥4 weeks for TIV and ≥6 weeks for LAIV).

### 6. Hepatitis A vaccine (HepA). (Minimum age: 12 months)

- The 2 doses in the series should be administered at least 6 months apart.
- HepA is recommended for certain other groups of children including in areas where vaccination programs target older children. See MMWR 2006; 55(RR-7):1-23.

### 7. Hepatitis B vaccine (HepB). (Minimum age: birth)

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for 11-15 year olds.

### 8. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)

- For children who received an all-IPV or all-oral poliovirus (0PV) series, a fourth dose is not necessary if third dose was administered at age ≥4 years.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be given, regardless of the child's current age.

### 9. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)

•If not previously vaccinated, administer 2 doses of MMR during any visit with  $\geq 4$  weeks between the doses.

### **10.Varicella vaccine.** (Minimum age: 12 months)

- Administer 2 doses of varicella vaccine to persons without evidence of immunity.
- Administer 2 doses of varicella vaccine to persons aged ≤13 years at least 3 months apart. Do not repeat the second dose, if administered ≥28 days following the first dose.
- Administer 2 doses of varicella vaccine to persons aged ≥13 years at least 4 weeks apart.

### **Recommended Immunization Schedule** for Children and Adolescents Who Start Late or Who Are More Than 1 Month Behind

The tables below give catch-up schedules and minimum intervals between doses for children who have delayed immunizations. There is no need to restart a vaccine series regardless of the time that has elapsed between doses. Use the table appropriate for the child's age.

CATCH-UP SCHEDULE FOR AGES 4 MONTHS THROUGH 6 YEARS							
Vaccine	Minimum Age		Minimum Interval Between	en Doses			
Vaccinc	for Dose 1	Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5		
Hepatitis B¹	Birth	4 weeks	8 weeks (and 16 weeks after first dose)				
Rotavirus <sup>2</sup>	6 wks	4 weeks	4 weeks				
Diphtheria,Tetanus, Pertussis³	6 wks	4 weeks	4 weeks	6 months	6 months <sup>3</sup>		
Haemophilus influenzae type bʻ	6 wks	4 weeks if first dose given at age <12 months 8 weeks (as final dose) if first dose given at age 12-14 months No further doses needed if first dose given at age ≥15 months	4 weeks⁴ if current age <12 months  8 weeks (as final dose)⁴ if current age ≥12 months and second dose given at age <15 months  No further doses needed if previous dose given at age ≥15 months	8 weeks (as final dose) This dose only necessary for children aged 12 months—5 years who received 3 doses before age 12 months			
Pneumococcal <sup>5</sup>	6 wks	4 weeks if first dose given at age <12 months and current age <24 months 8 weeks (as final dose) if first dose given at age ≥12 months or current age 24–59 months No further doses needed for healthy children if first dose given at age ≥24 months	4 weeks if current age <12 months 8 weeks (as final dose) if current age ≥12 months No further doses needed for healthy children if previous dose given at age ≥24 months	8 weeks (as final dose) This dose only necessary for children aged 12 months–5 years who received 3 doses before age 12 months			
Inactivated Poliovirus <sup>6</sup>	6 wks	4 weeks	4 weeks	4 weeks <sup>6</sup>			
Measles, Mumps, Rubella <sup>7</sup>	12 mos	4 weeks					
Varicella <sup>8</sup>	12 mos	3 months					
Hepatitis A <sup>9</sup>	12 mos	6 months					

CATCH-UP SCHEDULE FOR AGES 7–18 YEARS							
Vaccine	Minimum Age	Minimum Interval Between Doses					
Vaccing	for Dose 1	Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5		
Tetanus, Diphtheria/ Tetanus, Diphtheria, Pertussis¹º	7 yrs¹º	4 weeks	8 weeks if first dose given at age <12 months 6 months if first dose given at age ≥12 months	6 months if first dose given at age <12 months			
Human Papillomavirus <sup>11</sup>	9 yrs	4 weeks	12 weeks				
Hepatitis A <sup>9</sup>	12 mos	6 months					
Hepatitis B¹	Birth	4 weeks	<b>8 weeks</b> (and 16 weeks after first dose)				
Inactivated Poliovirus <sup>6</sup>	6 wks	4 weeks	4 weeks	4 weeks <sup>6</sup>			
Measles, Mumps, Rubella <sup>7</sup>	12 mos	4 weeks					
Varicella <sup>8</sup>	12 mos	4 weeks if first dose given at age ≥13 years					
	12 mos	3 months if first dose given at age <13 years					

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- 1. Hepatitis B vaccine (HepB). (Minimum age: birth)
  - Administer the 3-dose series to those who were not previously vaccinated.
  - A 2-dose series of Recombivax HB® is licensed for 11-15 year olds.
- 2. Rotavirus vaccine (Rota). (Minimum age: 6 weeks)
  - Do not start the series later than age 12 weeks.
  - · Administer the final dose in the series by 32 weeks of age. Do not administer a dose later than age 32 weeks.
  - There are insufficient data on safety and efficacy outside of these age ranges.
- 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)
  - The fifth dose is not necessary if the fourth dose was administered at age ≥4 years.
  - DTaP is not indicated for persons aged ≥7 years.

### 4. Haemophilus influenzae type b conjugate vaccine (Hib).

(Minimum age: 6 weeks)

- Vaccine is not generally recommended for children aged ≥5 years.
- If current age <12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or ComVax® [Merck]), the third (and final) dose should be administered at age 12-15 months and at least 8 weeks after the second dose.
- If first dose given at age 7-11 months, give 2 doses separated by 4 weeks plus a booster at age 12-15 months.
- 5. Pneumococcal conjugate vaccine (PCV). (Minimum age: 6 weeks) Vaccine is not generally recommended for children aged ≥5 years.
- 6. Inactivated poliovirus vaccine (IPV). (Minimum age: 6 weeks)
  - For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥4 years.
  - If both OPV and IPV were administered as part of a series, a total of 4 doses should be

given, regardless of the child's current age.

- 7. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)
  - The second dose of MMR is recommended routinely at age 4-6 years but may be administered earlier if desired.
  - If not previously vaccinated, administer 2 doses of MMR during any visit with ≥4 weeks between the doses.
- 8. Varicella vaccine. (Minimum age: 12 months)
  - The second dose of varicella vaccine is recommended routinely at age 4-6 years but may be administered earlier if desired.
  - Do not repeat the second dose in persons aged <13 years, if administered ≥28 days</li> following the first dose.
- 9. Hepatitis A vaccine (HepA). (Minimum age: 12 months)
  - HepA is recommended for certain groups of children including in areas where vaccination programs target older children. See MMWR 2006; SS (RR-7) 1-23.

### 10. Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

(Minimum ages: 7 years for Td, 10 years for BOOSTRIX®, and 11 years for ADACEL™)

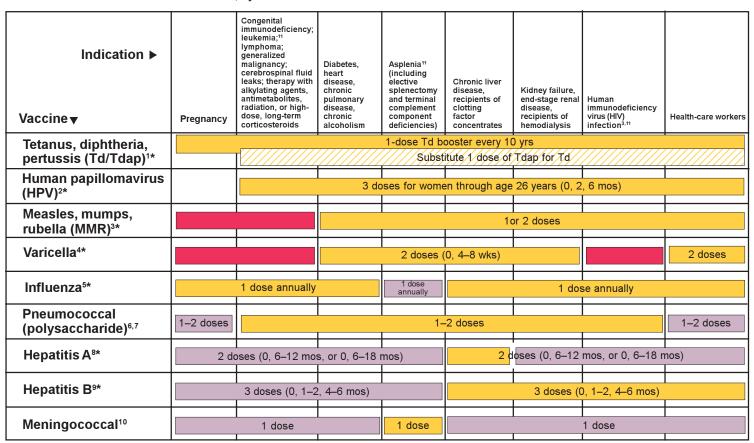
- •Tdap should be substituted for a single dose of Td in the primary catch-up series or as a booster if age-appropriate; use Td for other doses.
- A five-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. A booster (4th) dose is needed if any of the previous doses were administered at age <12 months. Refer to ACIP recommendations for further information. See MMWR 2006; SS (RR-3) L34.
- 11. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)
- Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

### Recommended Adult Immunization Schedule United States, October 2006–September 2007

Recommended adult immunization schedule, by vaccine and age group

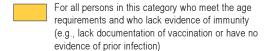
Age group (yrs) ▶ Vaccine ▼	19–49 years	50–64 years	≥65 years					
Tetanus, diphtheria, pertussis (Td/Tdap)¹*	1-dose Td booster every 10 yrs  Substitute dose of Tdap for Td							
Human papillomavirus (HPV) <sup>2*</sup>	3 doses (females)							
Measles, mumps, rubella (MMR)³*	1 or 2 doses	1 (	dose					
Varicella <sup>4*</sup>	2 doses (0, 4–8 wks)	2 doses (0, 4–8 wks)						
Influenza⁵*	1 dose annually	1 dose annually 1 dose annually						
Pneumococcal (polysaccharide) <sup>6,7</sup>	1–2	1 dose						
Hepatitis A®*	2 doses (0, 6–12 mos, or 0, 6–18 mos)							
Hepatitis B <sup>9*</sup>	3 doses (0, 1–2, 4–6 mos)							
Meningococcal <sup>10</sup>		1 or more doses						

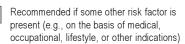
Recommended adult immunization schedule, by vaccine and medical and other indications



<sup>\*</sup> Covered by the Vaccine Injury Compensation Program

These recommendations must be read along with the footnotes, which can be found on the next 2 pages of this schedule.







### **Footnotes**

- 1. Tetanus, diphtheria, and acellular pertussis (Td/Tdap) vaccination. Adults with uncertain histories of a complete primary vaccination series with diphtheria and tetanus toxoid-containing vaccines should begin or complete a primary vaccination series. A primary series for adults is 3 doses; administer the first 2 doses at least 4 weeks apart and the third dose 6-12 months after the second. Administer a booster dose to adults who have completed a primary series and if the last vaccination was received ≥ 10 years previously. Tdap or tetanus and diphtheria (Td) vaccine may be used; Tdap should replace a single dose of Td for adults aged <65 years who have not previously received a dose of Tdap (either in the primary series, as a booster, or for wound management). Only one of two Tdap products (Adacel® [sanofi pasteur, Swiftwater, Pennsylvania]) is licensed for use in adults. If the person is pregnant and received the last Td vaccination ≥10 years previously, administer Td during the second or third trimester; if the person received the last Td vaccination in <10 years, administer Tdap during the immediate postpartum period. A onetime administration of 1-dose of Tdap with an interval as short as 2 years from a previous Td vaccination is recommended for postpartum women, close contacts of infants aged <12 months, and all health-care workers with direct patient contact. In certain situations, Td can be deferred during pregnancy and Tdap substituted in the immediate postpartum period, or Tdap can be given instead of Td to a pregnant woman after an informed discussion with the woman (see http://www.cdc.gov/nip/publications/acip-list.htm). Consult the ACIP statement for recommendations for administering Td as prophylaxis in wound management (http://www.cdc.gov/mmwr/preview/mmwrhtml/ 00041645.htm).
- 2. Human Papillomavirus (HPV) vaccination. HPV vaccination is recommended for all women aged ≤26 years who have not completed the vaccine series. Ideally, vaccine should be administered before potential exposure to HPV through sexual activity; however, women who are sexually active should still be vaccinated. Sexually active women who have not been infected with any of the HPV vaccine types receive the full benefit of the vaccination. Vaccination is less beneficial for women who have already been infected with one or more of the four HPV vaccine types. A complete series consists of 3 doses. The second dose should be administered 2 months after the first dose; the third dose should be administered 6 months after the first dose. Vaccination is not recommended during pregnancy. If a woman is found to be pregnant after initiating the vaccination series, the remainder of the 3-dose regimen should be delayed until after completion of the pregnancy.
- 3. Measles, Mumps, Rubella (MMR) vaccination. Measles component: adults born before 1957 can be considered immune to measles. Adults born during or after 1957 should receive ≥1 dose of MMR unless they have a medical contraindication, documentation of  $\geq 1$  dose, history of measles based on health-care provider diagnosis, or laboratory evidence of immunity. A second dose of MMR is recommended for adults who 1) have been recently exposed to measles or in an outbreak setting; 2) were previously vaccinated with killed measles vaccine; 3) have been vaccinated with an unknown type of measles vaccine during 1963-1967; 4) are students in postsecondary educational institutions; 5) work in a health-care facility, or 6) plan to travel internationally. Withhold MMR or other measles-containing vaccines from HIV-infected persons with severe immunosuppression. Mumps component: adults born before 1957 can generally be considered immune to mumps. Adults born during or after 1957 should receive 1 dose of MMR unless they have a medical contraindication, history of mumps based on health-care provider diagnosis, or laboratory evidence of immunity. A second dose of MMR is recommended for adults who 1) are in an age group that is affected during a mumps outbreak; 2) are students in postsecondary educational institutions; 3) work in a healthcare facility; or 4) plan to travel internationally. For unvaccinated health-care

- workers born before 1957 who do not have other evidence of mumps immunity, consider giving 1 dose on a routine basis and strongly consider giving a second dose during an outbreak. *Rubella component*: administer 1 dose of MMR vaccine to women whose rubella vaccination history is unreliable or who lack laboratory evidence of immunity. For women of childbearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate women who are pregnant or who might become pregnant within 4 weeks of receiving vaccine. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the healthcare facility.
- 4. Varicella vaccination. All adults without evidence of immunity to varicella should receive 2 doses of varicella vaccine. Special consideration should be given to those who 1) have close contact with persons at high risk for severe disease (e.g., health-care workers and family contacts of immunocompromised persons) or 2) are at high risk for exposure or transmission (e.g., teachers of young children; child care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers). Evidence of immunity to varicella in adults includes any of the following: 1) documentation of 2 doses of varicella vaccine at least 4 weeks apart; 2) U.S.-born before 1980 (although for health-care workers and pregnant women, birth before 1980 should not be considered evidence of immunity); 3) history of varicella based on diagnosis or verification of varicella by a health-care provider (for a patient reporting a history of or presenting with an atypical case, a mild case, or both, health-care providers should seek either an epidemiologic link with a typical varicella case or evidence of laboratory confirmation, if it was performed at the time of acute disease); 4) history of herpes zoster based on health-care provider diagnosis; or 5) laboratory evidence of immunity or laboratory confirmation of disease. Do not vaccinate women who are pregnant or might become pregnant within 4 weeks of receiving the vaccine. Assess pregnant women for evidence of varicella immunity. Women who do not have evidence of immunity should receive dose 1 of varicella vaccine upon completion or termination of pregnancy and before discharge from the health-care facility. Dose 2 should be administered 4–8 weeks after dose 1.
- 5. Influenza vaccination: Medical indications: chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases, including diabetes mellitus, renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or HIV); any condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injury, or seizure disorder or other neuromuscular disorder); and pregnancy during the influenza season. No data exist on the risk for severe or complicated influenza disease among persons with asplenia; however, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia. Occupational indications: health-care workers and employees of long-term-care and assisted living facilities. Other indications: residents of nursing homes and other long-termcare and assisted living facilities; persons likely to transmit influenza to persons at high risk (i.e., in-home household contacts and caregivers of children aged 0-59 months, or persons of all ages with high-risk conditions); and anyone who would like to be vaccinated. Healthy, nonpregnant persons aged 5-49 years without high-risk medical conditions who are not contacts of severely immunocompromised persons in special care units can receive either intranasally administered influenza vaccine (FluMist®) or inactivated vaccine. Other persons should receive the inactivated vaccine.

### **Footnotes**

- **6. Pneumococcal polysaccharide vaccination**. *Medical indications:* chronic disorders of the pulmonary system (excluding asthma); cardiovascular diseases; diabetes mellitus; chronic liver diseases, including liver disease as a result of alcohol abuse (e.g., cirrhosis); chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection [vaccinate as close to diagnosis as possible when CD4 cell counts are highest], leukemia, lymphoma, multiple myeloma, Hodgkin disease, generalized malignancy, organ or bone marrow transplantation); chemotherapy with alkylating agents, antimetabolites, or highdose, long-term corticosteroids; and cochlear implants. *Other indications*: Alaska Natives and certain American Indian populations and residents of nursing homes or other long-term—care facilities.
- 7. Revaccination with pneumococcal polysaccharide vaccine. One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkin disease, generalized malignancy, or organ or bone marrow transplantation); or chemotherapy with alkylating agents, antimetabolites, or high-dose, long-term corticosteroids. For persons aged  $\geq 65$  years, one-time revaccination if they were vaccinated  $\geq 5$  years previously and were aged  $\leq 65$  years at the time of primary vaccination.
- **8. Hepatitis A vaccination**. *Medical indications:* persons with chronic liver disease and persons who receive clotting factor concentrates. *Behavioral indications:* men who have sex with men and persons who use illegal drugs. *Occupational indications:* persons working with hepatitis A virus (HAV)—infected primates or with HAV in a research laboratory setting. *Other indications:* persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A (a list of countries is available at http://www.cdc.gov/travel/diseases.htm) and any person who would like to obtain immunity. Current vaccines should be administered in a 2-dose schedule at either 0 and 6–12 months, or 0 and 6–18 months. If the combined hepatitis A and hepatitis B vaccine is used, administer 3 doses at 0, 1, and 6 months.
- **9. Hepatitis B vaccination**. *Medical indications:* Persons with end-stage renal disease, including patients receiving hemodialysis; persons seeking evaluation or treatment for a sexually transmitted disease (STD); persons with HIV infection; persons with chronic liver disease; and persons who receive clotting factor concentrates. *Occupational indications:* health-care workers and public-safety workers who are exposed to blood or other potentially infectious body

- fluids. Behavioral indications: sexually active persons who are not in a longterm, mutually monogamous relationship (i.e., persons with >1 sex partner during the previous 6 months); current or recent injection-drug users; and men who have sex with men. Other indications: household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection; clients and staff members of institutions for persons with developmental disabilities; all clients of STD clinics; international travelers to countries with high or intermediate prevalence of chronic HBV infection (a list of countries is available at http:// www.cdc.gov/travel/diseases.htm); and any adult seeking protection from HBV infection. Settings where hepatitis B vaccination is recommended for all adults: STD treatment facilities; HIV testing and treatment facilities; facilities providing drug-abuse treatment and prevention services; health-care settings providing services for injection-drug users or men who have sex with men; correctional facilities; end-stage renal disease programs and facilities for chronic hemodialysis patients; and institutions and nonresidential daycare facilities for persons with developmental disabilities. Special formulation indications: for adult patients receiving hemodialysis and other immunocompromised adults, 1 dose of 40  $\mu$ g/mL (Recombivax HB®) or 2 doses of 20  $\mu$ g/mL (Engerix-B®).
- **10. Meningococcal vaccination**. *Medical indications*: adults with anatomic or functional asplenia, or terminal complement component deficiencies. *Other indications*: first-year college students living in dormitories; microbiologists who are routinely exposed to isolates of *Neisseria meningitidis*; military recruits; and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of Sub-Saharan Africa during the dry season [December–June]), particularly if contact with local populations will be prolonged. Vaccination is required by the government of Saudi Arabia for all travelers to Mecca during the annual Hajj. Meningococcal conjugate vaccine is preferred for adults with any of the preceeding indications who are aged ≤55 years, although meningococcal polysaccharide vaccine (MPSV4) is an acceptable alternative. Revaccination after 5 years might be indicated for adults previously vaccinated with MPSV4 who remain at high risk for infection (e.g., persons residing in areas in which disease is epidemic).
- 11. Selected conditions for which *Haemophilus influenzae* type b (Hib) vaccination may be used. Hib conjugate vaccines are licensed for children aged 6 weeks—71 months. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults with the chronic conditions associated with an increased risk for Hib disease. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or have had splenectomies; administering vaccine to these patients is not contraindicated.

This schedule indicates the recommended age groups and medical indications for routine administration of currently licensed vaccines for persons aged ≥19 years, as of October 1, 2006. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (http://www.cdc.gov/nip/publications/acip-list.htm).

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at http://www.vaers.hhs.gov or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at http://www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382.To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule and contraindications for vaccination is also available at http://www.cdc.gov/nip or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 24 hours a day, 7 days a week.

Approved by the Advisory Committee on Immunization Practices, the American College of Obstetricians and Gynecologists, and the American Academy of Family Physicians

### Is the vaccine safe?

The hepB vaccine is very safe. The most common side effect is soreness at the place where the shot was given.

Before babies are given the hepB vaccine, their parents should be given a form called Hepatitis B Vaccine, What You Need To Know. This form gives information about the vaccine. Parents are asked to read the form and then talk with the doctor or nurse if they have questions.

### Should older children get the hep B vaccine?

All children and teenagers should get the hepB vaccine. Parents can talk to their children's doctor or nurse about getting the vaccine.

### Should anyone else get the shots?

People should get the hepB vaccine if they:

- live with someone who has the hepatitis B virus
- have more than one sexual partner
- have a sexually transmitted disease
- are a hemodialysis patient
- get blood products
- have liver disease
- come into contact with blood at their jobs
- inject drugs

### **More information**

For more information, call your child's doctor, local health department, or the Michigan Department of Community Health Perinatal Hepatitis B Prevention Program at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.

### **Websites**

Michigan Department of Community Health www.michigan.gov/hepatitisb

Centers for Disease Control and Prevention (CDC)

www.cdc.gov/hepatitis

Immunization Action Coalition www.immunize.org

Hepatitis B Information and Support List www.hblist.org

### PROTECT YOUR CHILDREN TODAY BY HAVING THEM GET THEIR HEPATITIS B SHOTS!

Michigan Department
of Community Health

Total

Jennifer M. Granholm, Governor
Janet Olszewski, Director

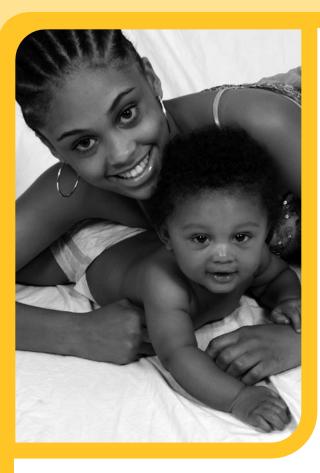
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Rev. 11/06



### HEPATITIS B: What Parents Need to Know

With special information for pregnant women



### What is hepatitis B?

Hepatitis B is a disease caused by a virus that infects the liver. People often show no signs of having the virus. Most people who get the virus get better in a few months, but some carry the virus in their blood all their lives (they are called carriers). In the United States, about 51,000 people get hepatitis B every year, and about one million people are carriers.

C

Babies can get hepatitis B at birth if their mother has the hepatitis B virus.



Babies and young children may also get hepatitis B if they come into contact with blood or body fluids from their mother or from people they live with who have hepatitis B. The younger you are when you get hepatitis B, the more likely you will become a carrier of the disease.

### How do you get hepatitis B?

You can get it:



### • at birth, if your mother has the virus

- by having sex or sharing needles with someone who has the virus
- by sharing personal things like razors and toothbrushes with a person who has the virus

One out of three people with the hepatitis B virus does not know how he or she got it.

### How do you know if you have hepatitis B?

Hepatitis B can make you feel tired or sick and can sometimes make your skin and eyes yellow.

Many people don't know they have hepatitis B, because they don't feel or look sick. Even if you don't look or feel sick, you can still get liver disease and give hepatitis B to others.

The only way to know if you have hepatitis B is to get a blood test.



Women should be tested for hepatitis B surface antigen (HBsAg) during EACH pregnancy to see if they have the hepatitis B virus.

### How can babies be safe from getting hepatitis B?

- If a test shows that a pregnant woman has the hepatitis B virus in her blood, her baby can get this virus at birth. Babies born to women who have the hepatitis B virus need:
  - hepatitis B immune globulin (HBIG) and hepatitis B (hepB) vaccine WITHIN TWELVE HOURS OF BIRTH
  - a second shot of hepB vaccine at one to two months of age
  - a third shot at six months of age
  - a blood test three to nine months after the last shot to make sure that they are safe from getting the hepatitis B virus

Babies born to women who do NOT have the hepatitis B virus should also get the hepB vaccine:

- starting at birth
- at one to two months of age
- on or after six months of age



### MOTHERS...

Take this card with you when you go to the hospital. Give it to your nurse. This is one more way to help protect your baby from getting the hepatitis B virus.

### Don't share hepatitis B with your baby.

You have the hepatitis B virus in your blood, and you could give this virus to your baby at birth. If your baby does get hepatitis B, he or she could become ill. Your baby could also give the virus to others.



### How to protect your baby ...

Babies born to mothers who have the hepatitis B virus should get:

- Hepatitis B immune globulin (HBIG) and hepatitis B (hepB) vaccine within 12 hours of birth
- A second dose of hepB vaccine one-two months after the first dose
- A third dose at six months of age
- A blood test at nine to eighteen months of age (3 months after the completion of the vaccine series)

If you have questions about this program, or about how to get free hepB vaccine or free blood tests for your baby, household or sexual contacts, please call the Michigan Department of Community Health Perinatal Hepatitis B Program at 517-335-8122 or 800-964-4487. In southeast Michigan, call 313-456-4431 or 313-456-4432.





### STATE OF MICHIGAN

### DEPARTMENT OF COMMUNITY HEALTH

### Official State of Michigan Immunization Record

MCIR ID#: 10334350978 Gender: M Patient ID#:

Name: Fineis, Patrick Age: 2 Months 21 Days DOB: 03/14/2006

**Responsible Party:** Patrick Fineis **Address:** 123 Main Street **City,State,Zip:** Lansing, MI 48909

**Telephone:** 

**As of:** June 5, 2006

Provider: Assessment indicates that vaccinations can be administered today if not medically

contraindicated.

History of Shots Given by Series							
Vaccine Series	Dose#1	Dose#2	Dose#3	Dose#4	Dose#5	Dose#6	Dose#7
Hepatitis B	03/14/2006						
Various Immune Globulins	03/14/2006						

Immunization Status and Shots Needed								
Vaccine Series	Next Dose Due	<b>Accelerated Due Date</b>	<b>Recommended Date</b>	Overdue Date				
DTP/DTaP/DT/Td	1	04/25/2006	05/14/2006	06/14/2006				
Polio	1	04/25/2006	05/14/2006	06/14/2006				
MMR	1	03/14/2007	03/14/2007	06/14/2007				
Hib	1	04/25/2006	05/14/2006	06/14/2006				
Hepatitis B	2	04/11/2006	05/14/2006	08/14/2006				
Varicella	1	03/14/2007	03/14/2007	06/14/2007				
Pneumococcal Conjugate	1	04/25/2006	05/14/2006	06/14/2006				
Rotavirus	1	04/25/2006	04/25/2006	06/06/2006				

Signature:	<b>Date:</b> / /
	Bate:

MCIR ID#: 10334350978 Gender: M Patient ID#:

Name: Fineis, Patrick Age: 2 Months 21 Days DOB: 03/14/2006

Shots given Today							
Vaccine Type	Date	<b>Dose Qnty</b>	Site	Mfg	Lot#	VIS Date	Signature

Non-Administrations/Titers/Immunity					
Series/Antigen	Date	Reason			

Vaccines by Date Administered								
Vaccine Date Manufacturer Lot# Dose Qty								
Hep B (pediatric or adolescent)	03/14/2006			0				
HBIG: Hep B globulin	03/14/2006			0				

### INDIVIDUAL IMMUNIZATION RECORD BRING THIS RECORD FOR IMMUNIZATIONS

NAME (Last, First, Middle) BIRTHDATE BIRTH NAME TYPE OF HEALTH PROFESSIONAL DATE GIVEN VACCINE VACCINE OR CLINIC DOSE DUE Mo/Day/Year 1 Diphtheria-2 Tetanus-Pertussis 3 (DTaP/DTP/DT/ 4 Td/Tdap) 5 6 7 8 9 1 Haemophilus Influenza type B 2 (Hib) 3 4 Hepatitis B 1 (HepB) 2 3 4 Polio (IPV/OPV) 2 3 4 1 Pneumococcal Conjugate 2 (PCV7) 3 4 1 Rotavirus (Rota) 2 Hepatitis A (HepA) 2 1 Measles-Mumps-Rubella (MMR) 1 Varicella (Var) Chickenpox 2 HX of chickenpox Meningococcal (MCV4/MPSV4) 1 Human Papillomavirus 1 (HPV4) 2 3 Zoster Shingles 1 Influenza (TIV/LAIV)\*\* Other

Influenza vaccine recommendations change from year to year. Please check <u>www.michigan.gov/flu</u> for the most current changes, or call your local health department.

### STATE OF MICHIGAN

### OFFICIAL IMMUNIZATION RECORD

For Children and Adults

Name:		Sex:	$\Box$ F $\Box$ M
Birthdate:	1 WON		
Special Problems:	TUEBOR		
Physician/Clinic:	N W N		
_	Name		Telephone
Parent/Guardian:	CIRCUMSPICS		Talankana
	Name		Telephone

### Ages For Routine Childhood Vaccinations\*

**BIRTH** 2 MONTHS 4 MONTHS 6 MONTHS **12-15 MONTHS** 18 MONTHS 4-6 YEARS 11-12 YEARS

\*Alternative schedules are possible. Ask your doctor for details.

FOR MORE INFORMATION: www.michigan.gov/immunize or www.cdc.gov/nip

Getting immunized is a life-long job that prevents serious diseases.

- Children 11-12 years of age need shots to prevent tetanus, diphtheria, pertussis (whooping cough), and meningococcal disease. Girls should receive human papillomavirus vaccine.
- All adults (not just the elderly) need vaccines to protect them from severe illnesses.
- Many people need yearly influenza vaccine. Ask if you or one of your family members should get flu vaccine.

DCH-0592 (02/2007) Authority: Act 368 1978

Keep track of the immunizations you and your child have received.

- Bring your immunization card to every medical visit. This is necessary for children and adults.
- Ask to have your card updated every time vaccines are given.
- The Michigan Care Improvement Registry (MCIR) keeps immunization records for Michigan residents. Ask if the vaccine you or your child received is entered in MCIR.
- Children must meet Michigan's immunization requirements to enroll in any nursery, day care, preschool or head start program, and public or non-public school.



	Dose (units)	Type of vaccine		Date given mo/day/yr	Health professional or clinic	Date next dose due
Нер В			1			
			2			
			3			
Нер А			1			
			2			
If combo*			*			
	Com	bination vac	cine	s should always	be documented under each	n antigen.
MMR A second dos	e may be		1			
needed in sor	ne péople		2			
Varicella			1			
(chicken	oox)		2			
Zoster (s	hingles)		1			
Td, Tdap						
(Tetanus, diphtheria,						
[pertussi						
	-		H			
			$\vdash$			
	-		Н			

### ADULT IMMUNIZATION RECORD

Always carry this record with you and have your health professional or clinic keep it up to date.

Last name

<u>≺</u>

Birthdate:



	Type of vaccine	Date given mo/day/yr	Health professional or clinic	Date next dose due
Pneumococcal A second dose may be needed for those at risk.				
Influenza				
HPV (Human		1 2		
Papillomavirus)		3		
Meningococcal				
Other				
For more infor	rmation, call	your doctor, your loc	al health department, or 1-8	888-76-SHOTS.